

Journal of Postsecondary Education and Disability

Volume 26(2), Summer 2013

Journal of Postsecondary Education and Disability

Executive Editor

David R. Parker, *CRG (Children's Resource Group)*

Managing Editor

Richard Allegra, *AHEAD*

Editorial Assistant

Valerie Spears-Jarrell, *AHEAD*

Editorial Review Board

Manju Banerjee - *Landmark College*
Loring Brinckerhoff - *Educational Testing Service*
Stephanie Cawthon - *University of Texas at Austin*
Connie Chiba - *University of California, Berkeley*
Justin Cooper - *University of Louisville*
Lyman Dukes III - *University of South Florida at St. Petersburg*
Sharon Field Hoffman - *Wayne State University*
Elizabeth Evans Getzel - *Virginia Commonwealth University*
Christie L. Gilson - *Moravian College*
Sam Goodin - *Southern Illinois University*
Elizabeth G. Harrison - *University of Dayton*
Cheri Hoy - *University of Georgia*
Charles A. Hughes - *The Pennsylvania State University*
Michael John Humphrey - *Boise State University*
Anne L. Jannarone - *University of Arkansas*
Tori Kearns - *East Georgia College*
Kristina Krampe - *Kentucky Wesleyan College*
Sue Kroeger - *University of Arizona*
Tracy Knight Lackey - *Jackson State University*
Jennifer Lindstrom - *University of Georgia*
Ruth C. Loew - *Educational Testing Service*
Pamela Luft - *Kent State University*
Joseph W. Madaus - *University of Connecticut*
Elaine Manglitz - *Clayton College & State University*
Matthew Marino - *University of Central Florida*
Joan McGuire - *University of Connecticut*

Janet Medina - *McDaniel College*
Deborah Merchant - *Keene State College*
Ward Newmeyer - *Dartmouth College*
Christine O'Dell - *University of California, Davis*
Nicole Ofiesh - *Stanford University*
Hye-Jin Park - *University of Hawaii*
Betty Preus - *College of St. Scholastica*
Kelly Drew Roberts - *University of Hawaii at Manoa*
Frank R. Rusch - *University of Illinois at Urbana-Champaign*
Daniel Ryan - *SUNY at Buffalo*
Mary Catherine Scheeler - *Pennsylvania State Univ. Green Valley*
Sally Scott - *University of Mary Washington*
Stuart S. Segal - *University of Michigan*
Stan Shaw - *University of Connecticut*
Mike Shuttic - *St. Gregory's University*
Sharon K. Suritsky - *Upper St. Clair School District*
Tomone Takahashi - *Shinshu University, Japan*
Colleen A. Thoma - *Virginia Commonwealth University*
Audrey Trainor - *University of Wisconsin - Madison*
Mary Lee Vance - *Purdue University - Calumet*
Ruth Warick - *University of British Columbia*
Kristine Webb - *University of North Florida*
Roger Wessel - *Ball State University*
Marc Wilchesky - *York University*
Lee Woods - *Boise State University*

Practice Brief Review Board

Melinda S. Burchard - *Messiah College*
Doris A. Bitler Davis - *George Mason University*
Trey J. Duffy - *Cal Poly San Luis Obispo*
Alberto Guzman - *University of Arizona*
Andrea Henry - *Massasoit Community College*
Martha P. Jax - *Indiana University*
Donna Johnson - *University of Minnesota*
Andrew Jason Kaiser - *St. Ambrose University*
Colleen Lewis - *Columbia University*
Emily Lucio - *Catholic University of America*
Larry Markle - *Ball State University*
Lori R. Muskat - *Georgia School of Professional Psychology, Argosy - Atlanta*
Linda Nissebaum - *St. Louis Community College*
Christine Duden Street - *Washington University at St. Louis*
Jack Trammell - *Randolph-Macon College*
Susan A. Vogel - *Northern Illinois University*
Margaret P. Weiss - *George Mason University*

AHEAD Board of Directors

L. Scott Lissner, President; *The Ohio State University*
Bea Awoniyi, President-Elect; *Florida State University*
Terra Beethe, Secretary; *Bellevue University*
Michael Johnson, Treasurer; *Monroe Community College - Damon City Campus*
Jamie Axelrod, Director; *Northern Arizona University*
Gaeir Dietrich, Director; *High Tech Center Training Unit, California Community Colleges*
Alberto Guzman, Director; *University of Arizona*
Katheryne Staeger-Wilson, Director; *Missouri State University*
Ron Stewart, Lead Standing Committee Chair; *Managing Consultant, AltFormat Solutions LLC*
Melanie Thompson, Director; *Northern Illinois University*
Mary Lee Vance, Director; *Purdue University - Calumet*
Stephan J. Hamlin-Smith, (ex-officio) Executive Director; *AHEAD*

The *Journal of Postsecondary Education and Disability* is published in accessible formats. Please contact AHEAD to discuss hard copy subscription requests. All members of the Association on Higher Education And Disability receive the *Journal*.

© 2013, The Association on Higher Education And Disability, 107 Commerce Centre Drive #204, Huntersville, NC 28078 USA

Table of Contents
Journal of Postsecondary Education and Disability
Volume 26(2)

From the Editor <i>David R. Parker</i>	103
Faculty Mentorship and Transition Experiences of Students with Disabilities <i>Shawn Patrick</i> <i>Roger D. Wessel</i>	105 - 118
Group Member or Outsider: Perceptions of Undergraduates with Disabilities on Leisure Time Physical Activity <i>Mary Ann Devine</i>	119 - 133
Providing Postsecondary Transition Services to Youth with Disabilities: Results of a Pilot Program <i>Lucy Barnard-Brak</i> <i>Marcelo Schmidt</i> <i>Tianlan Wei</i> <i>Tamara Hodges</i> <i>Eric L. Robinson</i>	135 - 144
DSS and Accommodations in Higher Education: Perceptions of Students with Psychological Disabilities <i>Kathleen F. Stein</i>	145 - 161
PRACTICE BRIEF Examination Accommodation for Students with Sensory Defensiveness <i>Kieran Lewis</i> <i>Clodagh Nolan</i>	163 - 181
PRACTICE BRIEF Modeling Positive Behaviors for Postsecondary Students with Autism/Asperger's: The Use of "Television Coaching" <i>Jack Trammell</i>	183 - 187
BOOK REVIEW <i>Jack Trammell</i>	189
Author Guidelines	Inside Back Cover

FROM THE EDITOR

DAVID R. PARKER

This summer issue of JPED reflects the diversity of people, topics, services, cultures, and life stages that contribute to higher education's ongoing development of greater universal access for all. The first research article, by Patrick and Wessel, reports on faculty mentors' influence on undergraduates with disabilities during their transition to university life. Read more from this team's line of research on faculty mentoring and how this unique service affects student self-advocacy and retention.

Leisure time physical activities are an increasingly central component of college students' physical health, emotional well-being, and social engagement. Devine explored the perceptions of 16 undergraduates with various physical and sensory disabilities as they utilized campus activities and facilities. Her qualitative investigation is one of the first to study the intersection of disability and this important aspect of campus life.

In an era of diminishing resources, many secondary schools are minimizing efforts to prepare students with disabilities for postsecondary education. Countering this trend, Barnard-Brak, Schmidt, Wei, Hodges, and Robinson report on a school-based mentoring program for high school seniors with disabilities that positively impacted students' attitudes about applying to college and requesting accommodations.

Students with psychiatric disabilities are one of the fastest growing groups of students seeking Disability Services (DS). Concerns of being stigmatized often complicate the self-disclosure decisions of students with these non-apparent disabilities. Stein conducted an in-depth qualitative study to learn more about students' perceptions of how a DS office and accommodations could assist them as they navigated these complicated waters.

This issue of JPED also includes two practice briefs and one book review. Authors have responded positively to the recently revised Author Guidelines for practice briefs, which are non-empirical articles that describe innovative practices that could form the basis of future research studies. In the first practice

brief, Lewis and Nolan report on efforts at Trinity College in Dublin, Ireland to accommodate students with sensory defensiveness while taking exams. Read more about the partnership involving students, occupational therapists, and DS providers in identifying challenges and developing solutions.

To address the communication needs of students with autism spectrum disorders, Trammel presents a highly innovative practice brief in which students were coached to use television sitcoms as models of social interaction skills they could utilize on campus. Read more about this practice and how other campuses could adapt an individualized approach to skills development.

This issue of JPED concludes with a review of Paul Nolting's e-book, *Mathematics and Disabilities Handbook: A Guide for Students with LD, ADHD, TBI and Wounded Warriors*. The reviewer, Jack Trammel, attributes the author's success in part to his unique combination of research and practitioner skills. This publication helps readers implement specific approaches to mathematics education and assessment for students with a range of learning needs.

May the summer provide each of you with a chance to unwind, savor some thoughtful reading, and reflect on evidence-based practices to explore in the coming academic year.

Faculty Mentorship and Transition Experiences of Students with Disabilities

Shawn Patrick
University of Hawai'i Mānoa

Roger D. Wessel
Ball State University

Abstract

Students need to learn to navigate the transition from high school to college in order to be successful and stay in college. This process is especially challenging for many students with disabilities who may face additional difficulties due to their disability. The intent of this study was to gain a better understanding of the academic and social transition experiences of students with disabilities who had a faculty mentor in their first year of college. Although research has been conducted on the importance of student-faculty interaction, faculty mentoring, and the transition to college (Getzel, 2005; Halawah 2006; Madaus, 2005; Pascarella & Terenzini, 1977, 1978, 1979; Tinto, 1987, 1993), more research is needed with respect to the unique challenges students with disabilities face as they transition to college. This study found that for many students with disabilities, having a faculty mentor was helpful support during their transition to college.

Keywords: Students with disabilities, mentoring, transition, phenomenology

Since 2003, the number of students with disabilities enrolled in postsecondary education has hovered around 11 percent; 2,154,000 students in 2003 and 2,266,000 in 2008 (National Center for Educational Statistics, 2009). Since many students with disabilities often enter college unprepared (Getzel, 2005), mentorship programs may increase their likelihood of success (Stumbo, Blegan, & Lindahl-Lewis, 2008). The intent of this study was to gain a better understanding of the academic and social transition experiences of students with disabilities who had a faculty mentor in their first year of college.

Literature Review

The theoretical framework for this study rests with Tinto's theory of individual departure (1987, 1993) for students transitioning from high school to college. Tinto, using the rites of passage model created by Van Gennep (1960 [original work published in 1909]), maintained college students undergo three stages of transition as they adjust to and become assimilated into college life: separation, transition, and incorporation.

The degree of successful transition is directly related to the ability of a student to leave his or her former community and academically and socially integrate into the college community. During this transitional period, students depart from their families and high school communities and begin to make the transition to a new identity as a college student.

Colleges are made up of both academic and social systems, each with its own characteristic formal and informal structure and set of student, staff, and faculty communities. The former, the academic, concerns itself almost entirely with the formal education of students....The latter, the social system of the college, centers about the daily and personal needs of the various members of the institution, especially the students. (Tinto, 1993, p. 106)

Membership in one system does not inherently imply integration in the other. The absence of integration arises from a lack of institutional fit and isolation, happening when students do not fit into at least one of the multiple

communities within the university community. It is important for students to become integrated into both the academic and social university communities; departure may occur when they are not. Tinto indicated disadvantaged students, including those with physical disabilities, are more likely to experience difficulty during the transition stage. Several researchers have validated the utility of Tinto's model in predicting college student attrition (Christie & Dinham, 1991; Cotton & Wilson, 2006; Fusani, 1994; McKay & Estrella, 2008).

Tinto's theory has many implications for students with disabilities since they experience a dramatic educational transition from high school to college. Often, students with disabilities enter college "unprepared for the demands of postsecondary education" (Getzel, 2005, p. 70). The transitional issues are, in part, attributed to the change in how students are accommodated in high school due to the stark contrast in the laws governing secondary and postsecondary education for students with disabilities. "At the college level, significant changes occur in the legal rights of students, and there is a sharp reversal of parental and student responsibility" (Madaus, 2005 p. 32). In secondary education the onus is on the school to test students they assume may have a disability and provide the services needed free of charge (Individuals with Disability Act, 2004). At the postsecondary level students need to become self-advocates as nearly all of the responsibility for initiating services is transferred from the school and parent to the student. The emphasis is on equal access and reasonable accommodations rather than on modifying standards (Americans with Disabilities Act, 1990).

Many students with disabilities in high school are accustomed to altered academic standards and are, as a result, less prepared when they come to college (Madaus, 2005). Specifically, students may struggle with academic content, organization, time management, and study skills (Aderon & Durocher, 2007). Educators can play an important role in helping students with learning disabilities have a more successful transition to college (Skinner & Lindstrom, 2003).

Interaction between faculty members and students are important both in and out of the classroom. "Involvement in the classroom leads students to seek out contact with faculty. In this fashion, colleges can be seen as consisting not merely of multiple communities, but of overlapping and sometimes nested academic and social communities" (Tinto, 1993, pp. 132-133).

Informal interaction between faculty members and students is beneficial. "Faculty should not discount the benefit of informal, social interactions with students; such contact appears to provide an important foundation for student effort from which students can begin to pursue more academically oriented interactions" (Cotton & Wilson, 2006, p. 515). When students have this type of contact they are more likely to persist at the institution and achieve academically (Fusani, 1994; Martin, Myers, & Mottet, 1999).

While interaction with faculty members provides an additional layer of academic integration for students, there is little research on faculty members mentoring college students (Brown, Takahashi, & Roberts, 2010; Crisp & Cruz, 2009; Jacobi, 1991). Nora and Crisp (2007), exploring the dimensions associated with mentoring that assisted students in adjusting to college life and becoming fully engaged in and out of the classroom, found three factors that contributed to adjustment and engagement: educational/career goal-setting and appraisal, emotional and psychological support, and academic subject knowledge aimed at advancing a student's knowledge relevant to their chosen field. Mentors can engage mentees in discussions to explore ideas they have not considered related to the student's goals, provide encouragement, act as a support system, and provide students with specific knowledge related to their field of interest.

Researchers have been able to identify specific benefits to mentoring college students. Campbell and Campbell (1997) found participation in faculty mentorship resulted in gains in academic performance and retention. Having a mentor may be even more important for students with disabilities, especially if the mentors have a disability themselves (Burgstahler & Crawford, 2007). Intentional mentoring programs for students with disabilities can help ensure these students are academically prepared because they help students become acclimated to college and provide them a personal connection on campus. "Mentorships are one example of an intervention aimed at decreasing risk factors and increasing the likelihood of success for persons with disabilities" (Stumbo et al., 2008, p. 45).

The purpose of this study was to gain a better understanding of the academic and social transition experiences of students with disabilities who had a faculty mentor in their first year of college. This study addressed the following research questions:

1. What were the experiences of students with disabilities who had a faculty mentor in their first year of college?
2. What transitional experiences did college students with disabilities have when transitioning to their first year of college?

Method

Faculty Mentorship Program

The Faculty Mentorship Program was developed by university faculty and staff in the summer of 2006 to address concerns about the transition to postsecondary education for students with disabilities. The purpose of the Faculty Mentorship Program is to connect new students with disabilities with a faculty member in the student's major or area of interest. The disability services (DS) office invites all newly admitted students who have disclosed a disability to participate in the program. Approximately half of the students invited to join participate each year. Professional educators in the DS office pair the mentor with the mentee. When possible, the mentor is from the department of the student's major. Students and mentors receive a message from the program directors at the beginning of the academic year introducing students and mentors to one another and explaining the expectations and benefits of the program. After the students and mentors have an introductory meeting, the frequency and continued contact is up to them.

The faculty members selected to participate in the program were identified as being "disability friendly" and having a positive history with the DS office by demonstrating academic and personal care for students with disabilities. At the time of the study, the 45 faculty members that volunteered to be mentors represented 36 academic departments. The faculty mentors represented all ranks and both genders, a few also had a disability, and received information on how to mentor students with disabilities when they first joined the program. Luncheon discussion meetings and seminars take place every six to eight weeks to provide opportunities to learn more about students with disabilities and give the mentors an opportunity to share their experiences and advice. Topics of discussion have included technology options to accommodate blind or visually disabled students, an overview of universal design for instruction, how to assist college students with an acquired brain injury, and support for students with autism.

Design and Data Collection

This study was grounded in qualitative methodology because it "seeks to answer questions that stress *how* social experience is created and given meaning" (Denzin & Lincoln, 2005, p. 10). This methodology was chosen because the researchers believed the issues faced by students with disabilities would be best understood through in-depth questioning and analysis of their individual experiences. Further, phenomenology was used to construct this study and analyze the data as it aims to understand the "lived experiences" of a group of people (Creswell, 1994, p. 12).

The study was conducted at a mid-size, doctoral, public institution in the Midwest that primarily serves undergraduate students. The population consisted of traditional-aged college students with disabilities who met with a faculty mentor for at least one semester during their first year in college. Purposive sampling was used to locate informants (Patton, 1990). The director of DS forwarded an email to the population seeking participants; participation had no influence on DS provided. Phenomenological saturation was reached when the sample consisted of 12 students, the first individuals who responded to the message from the director of DS. The identities of the participants and the institution were concealed by pseudonyms.

Data were collected through personal interviews after the study had been approved by the Institutional Review Board. Personal interviews were conducted to gain in-depth answers about participants' experiences. The research team consisted of two researchers, a professor of higher education and a student affairs educator, with multiple experiences working with students with disabilities and gathering data on this subpopulation of students. A semi-structured interview protocol was used; this allowed participants to share stories and experiences and the researcher to probe with follow up questions (Patton, 1990). The research questions provided the organizational framework for the structure for this protocol. The protocol focused on the experiences of having a faculty mentor and their transition/incorporation to college. Since the instrument used to collect data was designed for this project, the researchers took measures to ensure the trustworthiness of the instrument. A panel of experts (two DS educators, three faculty members skilled in research methodology, and two faculty members who had served as mentors for students with disabilities) reviewed a proposed interview guide. A revised draft

of the interview guide was prepared based on the suggestions of this panel. Following this revision, a pilot test was conducted in which the proposed interview guide was given to three students of the population who responded to the call for participants, but they were not involved in the study. Final revisions of the interview protocol were based on the recommendation of the pilot test.

An attempt was made to create a relaxed atmosphere during each interview. The first few minutes consisted of informal conversation that established a rapport with the subject. Subjects were encouraged to share personal experiences and anecdotes. Examples of questions in the protocol included, How was your transition to college? What were the elements that made the transition easy and/or difficult? What were some of the new experiences you adjusted to during your first semester in college? Do you feel like your mentor helped you transition to college? What campus resources did your mentor refer you to? What kind of advice would you give other students with disabilities about having a faculty mentor? Interviews had no set time limit and continued until all questions from the interview protocol were exhausted. Participants knew in advance the interviews would be audio recorded.

Data Analysis

Each interview was transcribed and verified (reviewing the transcripts against the audio tapes to ensure there were no errors) by one of the researchers. After the data were collected, thematic analysis was used to analyze the data (Van Manen, 1990). The research questions provided the broad categories for themes: faculty mentorship and transition to college. From the themes, codes were extrapolated to identify major categories that explained the experienced phenomenon. Subthemes were identified by repeated reviewing of the transcripts and listening to the audio recordings for unique or repetitive responses. The number of participants mentioning subthemes, as well as the qualitative information they shared, such as quotes or stories, were used to explain each subtheme. For example, all 12 participants mentioned receiving advice from their mentors, so information was shared about what advice was offered and how students perceived it. Finally, a narrative was constructed in relation to the original research questions. Memoing was used (Hesse-Biber & Leavy, 2006) as it helped the researchers reflect on data, themes, and codes.

Once themes were identified, a variety of techniques were used for verification including member checking and thick rich descriptions (Creswell, 2007). Participants were sent a transcript of the interview and asked to verify for accuracy. This process helped to ensure participant's experiences were accurately recorded. Thick rich descriptions were used to provide detail and context to the experiences of participants. Van Manen (1990) maintained thick rich descriptions allow for a more concrete understanding of the implications of the phenomenon. Moreover, thick rich descriptions allow for increased transferability into a variety of contexts. Conclusions for the study were framed as a discussion of the findings related to the research questions.

Findings

The participants consisted of 12 students, seven students with physical disabilities (i.e., five with mobility restrictions using a wheelchair, one with low vision using a service dog, and one with a non-apparent medical condition), and five students with cognitive disabilities (i.e., one with Attention Deficit Disorder [ADD], one with ADD and dyslexia, one with Asperger's and dyslexia, one with ADHD and a learning disability, and one with an undisclosed cognitive disorder). Two of the participants were male and 10 were female; most participants were Caucasian, one student was African American. The findings are organized into two broad categories: experiences with a faculty mentors, and transitional issues encountered by students with disabilities.

Faculty Mentorship

The participants shared mainly positive characteristics regarding having faculty mentors as they transitioned to college. The topics students discussed with their mentors, from general advice and information about campus resources to how to approach faculty members, varied greatly based on the individual needs of the student and relationships between students and faculty mentors.

Advice. Faculty mentors gave advice that was helpful for students regarding the transition from high school to college and how to become familiar with college. While they did not always act on the advice, students felt it provided them with useful information on a variety of topics. Some of the faculty mentors took a holistic approach to their mentoring and tried to make sure students were successful in their transition to college. One student

explained, “He said I need to learn to balance myself. . . . He sat me down and told me there are three components to my life: school, friends, and self.” She came to college feeling prepared for the academic rigor of college, but needed some help with the social transition. The mentor also gave her advice about meeting people and gaining experience, “Work experience: he says that every time I see him! Now I am seeing why.” She had a campus job for two years and in that time she has met others in her residence hall and made friends. She, like many of the students, felt her mentor cared about her as an individual, not just a student.

Other students needed more help with the academic transition to college. One student came to college feeling ready to make friends and be independent, so the conversations she had with her mentor centered on academics. Her mentor encouraged her to be a self-advocate regarding her disability.

One of the most important things she said was, do not be afraid to contact your professor. If something is not working for you, go to your professor early. Do not wait until the last minute...Tell them what you need.

This conversation helped her to be confident in discussing her disability and accommodation needs with faculty members. At first this was new to her, but over time and with the support of her faculty mentor she became more comfortable having these types of conversations.

Awareness of campus resources. As participants adjusted to life at college, their mentors made sure they were aware of campus resources. The campus resources mentors identified depended on the needs of the student. While students did not always seek out the campus resources their mentor talked about, participants felt being aware of the campus resources was important and added another layer of comfort during their transition.

Students acknowledged a variety of campus resources existed to aid their transition to college. One student shared, “Knowing the resources and making those available to me; that was extremely helpful. If it was not for him . . . I would not have known where to get the help.” Faculty mentors also normalized using campus resources that may have a negative connotation, such as the academic support center and the counseling center. This student shared that when first

coming to campus she was nervous to go to the writing support center for help with papers.

In our first meeting, she wanted to let me know that not just disabled kids go to the Learning Center or Writing Center. I was not singled out because I went there. It was more than just kids like me that go there.

Having a faculty mentor to encourage the use of campus resources was helpful for many students.

Getting to know faculty. The students also mentioned the positive effect that getting to know faculty had on their transition. Participants had a unique opportunity to form a close relationship with a faculty member, typically in their major, and learn what a faculty-student relationship was like. As a result, the mentors often helped them form relationships with other faculty members.

When first coming to college, one student was nervous about approaching her faculty members, but through forming a relationship with her faculty mentor this process became easier. She talked about how to approach teachers and discuss her need for accommodations. “I am not as nervous as I was before, so it is a lot easier to talk to my professors. Last semester was the first time I ever advocated for myself and that was not easy.” Another student shared a similar experience, “I feel like it has prepared me more to talk to my professors. I am not as scared as I would be if I were a normal student.” Students thought having a faculty mentor during their first year provided them with a unique vantage point and understanding of the role of faculty-student relationships.

One student’s mentor taught in his major and was able to answer department-specific information about the program and other faculty. “My mentor was on faculty in the communication studies department, so she helped me know that I could talk to her about stuff, but that I could also talk to my teachers about stuff.” Sometimes, as was the case with this student, students had their mentor as a teacher. “She helped me because I did not know any professors or anything and then second semester I had her as a teacher. It was nice because we were already friends.” Knowing someone in her major helped her with her academic transition not only to college, but also into her major.

Individual support. All of the participants cited individual support from their faculty mentor as a contrib-

uting factor to a positive transition to college. While students had support from other areas as well, they viewed the faculty mentor as someone who cared about their success and was familiar with campus. They provided a wide range of support to students, including social and academic issues. Students felt they had someone on campus who cared about their success. They also went to their faculty mentor when they encountered problems and did not know where else to turn. One student said it this way, "Even if I did not have a question, just the feeling of having someone that could help you was just awesome. It was like a worry I did not have to worry about anymore." He had a close relationship with his mentor and often looked to him for help and advice. "On a scale of one to 10, it would be a nine or 10, definitely. He always helps me when I need it and I know I can contact him at any time."

The transition to being self-advocates was difficult for some students and many appreciated the support their faculty mentor gave them. Prior to college, participants were used to family members and teachers advocating for their disability. This student felt her mentor taught her to stand up for herself.

He let me know that I might be different, but I am not less. The help I get is to even the playing field, not to put me above. He wanted me to know that being different is not a disability, it is an ability to see the world differently...One of my biggest fears was advocating for myself here but I am not by myself, especially with him. He is there whenever I need him.

Having a faculty mentor made her feel someone on campus was looking out for what was best for her. Through coaching conversations, this student learned how to disclose her disability to faculty members and ask for the accommodations she needed to be successful.

Mentor relationship. All of the students interviewed felt having a mentor relationship positively affected their transition. It was only through forming a close bond with their faculty mentor that students felt comfortable opening up to them. Additionally, students with a close relationship were likely to listen to the advice from their mentor and utilize the campus resources recommended.

Participants indicated getting to know their faculty mentor on a personal level was important to forming a close relationship. In speaking about her transition to

college, one student talked about how her faculty mentor was helpful. "I felt comfortable talking to him and did not feel like he was judging me while I was talking to him." Another student had a similar experience, but her mentor ended up being one of her teachers too, which strengthened their relationship. "I really liked having my professor as my mentor and knowing that I was always able to ask him questions, even if they were just life questions. It definitely helped with the transition." One student's mentor invited her and his other two mentees over to his house for Thanksgiving. The close relationship she formed with her mentor helped her far beyond the academic and social transition issues commonly faced by students coming to college.

While it is not necessary for mentors to have a disability, some participants indicated it helped them form a closer bond with their mentor, because they were able to share common experiences regarding having a disability. Students appreciated being able to share common experiences and stories related to having a disability. "She is blind and I am in a wheelchair, so we talked about funny things that happen to us that do not happen to other people. . . . We had a good time and could relate." The student felt this allowed them to relate on a deeper level as her mentor often talked to her about the challenges of having a physical disability, which enhanced their relationship.

On the other hand, mentor/mentee interactions did not last as long when students did not have close relationships to the faculty mentor. One student said she would recommend the program to other students with disabilities, but felt having a close relationship was crucial. "I actually did suggest the program to one of my friends and she did it, but she and her faculty mentor never really hit it off and it really was not a positive experience."

Decreasing role of the mentor. While having a faculty mentor was an important factor in the transition from high school to college, many students found the mentor less useful the longer they were in school. After their freshman year many students indicated they did not need a faculty mentor and as a result the interaction with the mentor decreased. One student indicated she met with her mentor six times her first year, three times her second year, and has not met with him during her third year. Another student shared a similar experience. "I have not met with her as much this semester, but I think she has prepared me." Faculty mentorship helps students with disabilities transition to college, but the

need for this type of relationship decreases as students become acclimated to the institution.

Transition to College

The participants in this study encountered many specific transitional experiences as a result of having a disability. The common experiences shared by the participants included academic transition, social transition, family, and accommodations. Additionally, students with a physical disability noted a sense of community, getting around campus, and attendants.

Academic transition. Eleven of the 12 participants indicated the academic transition from high school to college was difficult. While each student had a different disability and academic background, they were all able to share how their disability affected their academic integration. One student reported the transition from high school to college was not easy. Although her parents knew about her disability since elementary school, they never disclosed it to her teachers out of fear she would be treated differently. While she attended regular classes all through primary and secondary school, she was not ready for college-level academics. She said, “My high school did not really prepare me at all for college.” While some students indicated a general feeling of unpreparedness, other students specifically cited how their disability affected feeling ready for college academics. Some students reported they felt insulated in high school. A student explained how her ADD affected her academics, “The first semester was kind of rough. . . . I am really bad about doing big papers, because I cannot concentrate so I have trouble getting them done.”

Students with disabilities want to do well in school just like any other group of students. One student felt she had to overcome additional pressures to be successful due to the prejudice her teachers and fellow students had regarding individuals with disabilities.

I think it made me more driven, too. I know it made me more driven in high school because I was constantly having to prove myself to my teachers, and prove to all of the students of my class, that I was not dumb, and not stupid. I was in a chair, but I got there the same way they got there and was in their same classes they were because I am smart and can handle myself. I think it keeps me driven in a way.

She felt the accommodations received did not provide an academic advantage, but rather leveled the field.

Another student even expressed aversion to teachers providing different standards based on her disability. She did not want to be treated differently in any way because of her disability.

He is hard on everyone else; he pushes because he knows that we can do it. My biggest pet peeve is when a teacher sees my disability and cuts my work in half, or even more. That to me is a sign I cannot do it. I can do it, maybe just not as fast as everyone else.

These additional challenges made it difficult to adjust to the academic environment of college. While resources and support existed for these students, sometimes they were not aware of these resources or chose not to use them due to a perceived stigma

Social transition. In addition to academic challenges, students with disabilities may also struggle socially. Making friends and feeling socially accepted is important for students coming to college. However, participants felt they were stigmatized and marginalized due to their disability. As a result, some students with disabilities found the social transition from high school and home to college difficult. One student felt he overcame the hurdle his disability could have placed in front of him and got involved anyway.

Having a disability, sometimes you just do not want to go out and do stuff, but I just pull myself through it. I always think of people who are out there who are way worse than I am that are getting out there, so that helps me get out there more. I just think about people that have more stuff to deal with.

While most students have some challenges related to transitioning from high school and home to college, these students felt they experienced additional challenges. However, many of them were able to overcome these challenges. One student shared how her brother assisted her with the social transition to college, “He helped me more with my social skills. With Asperger’s, it is hard to have social skills. He helped me get started with the friends because I do not like being close to people.” Students with physical disabilities also face unique challenges related to getting around. One student explained, “You cannot do some things

with people that other people can do. You cannot go to someone's house off campus or just get in the car. It is harder." These challenges can sometimes cause students with disabilities to feel isolated.

On the other hand, when students found companionship with other students with disabilities, they felt they had a support system. This actually enhanced the social transition to college for many students, because they felt like a part of a group. One student said, "I think what made it easier was that I knew we had a really good disability program here. I knew there were people here I could go to for questions." Students with a physical disability feel an additional sense of community. Another student agreed by saying, "Having other students in wheelchairs, in the same position as me, I felt good about that. We connected . . . and having people understand that need was very good." Students living on campus found community in the residence hall. One student explained, "I did not have any friends on my floor at Williams. I was coming over to Baker [a hall with a large population of students with physical disabilities] to hang out with my friends there." In general, students with disabilities struggled socially while adjusting to college.

Family. Students with disabilities also had to get used to not having their families around. The participants had various levels of parental involvement both in high school and at college. At times, students had a close relationship with family members and relied on them for help while others had their parents advocate on their behalf.

The hardest part for many students about leaving family members was becoming independent and having to do things on their own. One student shared, "I was not homesick, I just missed my mom more and everything she does for me." Another student told a similar story, "The hardest thing was leaving my brother. He has been there for my entire life and he is the one that took care of me." It was important for these students to learn how to be independent and take care of themselves. This level of dependence was often deeply rooted from childhood. One student credited her mom for making sure she got the accommodations she needed.

My mom took care of the education part of it. She was my advocate and told my teachers what was going to happen. I do not look like a child with a disability so teachers would not believe me. So Mama Bear, that is what they called her, would come in.

Often the parent's active role made it difficult for students to take the lead in their own education. In high school, students were used to their parents and teachers making sure accommodations were in place, but once at college the students were completely responsible for this process. They not only had to be proactive about getting accommodations, but they also had to serve as an advocate for themselves. One student explained how her parents would help when teachers did not understand her illness, why she had to miss class more than other students, and how she is now responsible to be her own advocate. "You cannot call your mom and have her call a teacher to talk about the illness. In high school my parents would have called them and cleared things up, but here I have to handle everything on my own."

Accommodations. A common transitional issue for participants was becoming familiar with the accommodation process. The accommodation process was different from high school to college and the student now had to be responsible for requesting accommodations and disclosing their disability to faculty members. Many students felt unprepared for the change.

I did not realize how much effort my parents and my teacher of record put into an IEP...Now all of that has shifted on to my shoulders and I have to make sure that I am on top of being in communication with the students with disabilities office, but also with my professors.

This student realized she was the only person who could take the initiative to ask for accommodations and communicate to her teachers she had a disability. Another student said it this way:

You have to do more of it yourself, because if you do not then you are not going to receive help. In K-12, someone was always there for you, they know what you need and your parents are always there...it went from someone else handling it to you handling it.

Not only was he now responsible for getting accommodations, but the process was also different. A student explained, "There is no middle-man...Here, if I want something done, I go and talk to the director of disability services." Many students thought this change was completely foreign when they came to college. They

were used to others being involved in the process and in college everything was dependent on them.

While the accommodation process in college is different and the burden to request accommodations is on the student, they felt the college had resources and staff to assist them. One student shared a story about working with the director of DS.

The first time I visited here, I was with my parents and he came up to me and was asking questions. He was not really asking my parents questions, he was asking me questions and I had to answer them. I knew I was going to have to speak up for myself... He would not physically do it, but he would help me with the information so that I could do what I need to in order to succeed.

He went on to say, the director of DS was the most helpful person on campus during his transition.

The accommodation process forced students to self-advocate. If students needed accommodations they were responsible for providing documentation of their disability and making a request for services. This process empowered them to disclose their disability to faculty members. The process of disclosing a disability and asking for accommodations was not easy for students, especially when they were new to college and unfamiliar with how to approach faculty members. One student said, "Handing my professors the [accommodation] letter that I have a learning disability was a little intimidating, that I had to admit to a learning disability. To this day, it is still hard...because it is stigmatized."

Sense of community. Coming to college also provided many students with a new sense of community with other students with disabilities. In general, the large population of students with disabilities and services available to them at the university may play an important role in creating a sense of community. It was important for students to find others who could relate to them. One student expressed, "Usually when you have a disability, you hang out with people that have a disability, because they understand you. It is hard to break that cycle because those are the people you connect with." The sense of community at college helped some students feel welcome on campus, an important piece of their transition to college.

Getting around campus. A college campus can be difficult to navigate, especially for students with mobility and visual disabilities. In high school students

are used to being in one building, while at college they have to travel across campus. This sometimes involves architectural barriers and challenges with the weather. Several students mentioned that campus accessibility played a significant role in their decision to attend the institution and their overall success at college. For example, one student shared a story about how the adaptive technology coordinator, who is also blind and has a service dog, took the time to show her where the veterinarian was and how to get around campus.

For students living on campus, the accessibility features in the residence halls allowed for them to live independently. A student explained she had her "own accessible bathroom, which was nice and the prox cards [electronic access system] are nice to get inside places." She went on to talk about how this was a major change from her parents' house. "My house is not accessible. I cannot get a drink or food without help. I cannot shower or get off the couch without help. Coming here, I could sit on the furniture and had to get my own food." As a result, she enjoyed being on campus more than at her parents' house because she was able to live independently in the residence halls.

Attendants. Four of the five students in wheelchairs shared that using nursing staff (attendants) was a new experience when transitioning to college. The students were used to having a family member help them with daily living tasks (i.e., bathing, toileting, getting dressed) and when they came to college they had to rely on hired attendants to help them. This was often a foreign experience, having someone they did not know in situations that are normally private. All of the students who talked about using attendants expressed frustration and how it added to the difficulty of transitioning to college. One student revealed, "The attendants were the hardest part to get used to just because I am not used to having a set time to use the bathroom or . . . where I have to go and get in my bed."

Discussion

The following conclusions were drawn from the study: students with disabilities find support through faculty mentorship and students with disabilities encounter transitional issues. Each conclusion is supplemented by literature, discussion, and suggestions.

Students with Disabilities Find Support Through Faculty Mentorship

For students with disabilities, faculty mentorship provides an added layer of support, which is often needed, especially during the transition from high school to college. All participants in this study said their faculty mentor was crucial in their transition due to the individual support and help they provided.

A wide variety of topics was discussed during meetings between the mentor and mentee, depending on the needs of the student. Participants commonly offered that mentors should attempt to take a holistic approach to working with their mentee, ensuring a smooth academic and social transition to college. Students appreciated when mentors would not only inquire about classroom experiences, but also inquire about their personal life. As a source of knowledge and authority, faculty mentors should also encourage positive behaviors, such as attending class, building relationships with other faculty members, and self-advocating regarding their disability. Mentors may also serve as an academic resource, especially when students are matched with a faculty member in their major or a closely related field. Mentors can assist students in adjusting to college life and becoming fully engaged in and out of the classroom (Nora & Crisp, 2007). Mentors should also seek to draw direct connections and parallels to students' academics and personal interests. Faculty mentors often have a unique relationship with their mentees and as a result can offer advice regarding part-time jobs, joining a student organization, or being involved on campus. Students felt individually supported and often relied on their faculty mentor as a resource and campus expert.

Students shared the conversations they had with their faculty mentor that helped them become acclimated to college and comfortable talking with other faculty members. Students described a faculty mentor as someone who cared about their success and was familiar with campus resources, often normalizing campus resources that may have a negative connotation (e.g., learning centers and counseling) due to the perception by students. Mentors were able to use their intimate knowledge about students' specific needs to personally refer them to specific campus resources.

Developing a close and sometimes personal bond with faculty mentors was crucial to the success of mentor-student relationships. Students who indicated they had a positive experience were able to identify

some type of personal interest or bond, such as a similar research interest, or something as inconsequential as liking the same sports team or hobby. Such a bond was the foundation for a closer relationship. Once students developed a connection to their faculty mentor, discussions about academic and transition issues easily followed. Furthermore, when students were paired with faculty members in their same or related academic discipline, they could have in-depth conversations about personal and academic interests. Many students felt it was important for their faculty mentor to be able to navigate their academic program and have experience in the field they wanted to pursue. Students with close bonds often stayed in contact with their mentors beyond their first semester or freshman year. Deep-seated relationships taught students the benefits of student-faculty interaction. Having a mentor may be especially beneficial for students with disabilities if the mentors have a disability themselves. While it is not necessary for a faculty mentor to share a similar disability, or a disability at all, it does provide a unique bond between the faculty member and student. Regardless of the type of bond, it is important the mentor and mentee establish a bond; otherwise the relationship is not likely to be strong or long-lasting.

In order to navigate the complexities of a college or university, students should be encouraged by their faculty mentor to build formal relationships with other faculty members. This is especially important as students need to be able to have candid conversations about their disability and individual needs in the classroom. Once they learned how to interact with their faculty mentor, conversations with other faculty members were not as difficult for some students. It is important for students to continue to establish close bonds with faculty members, even after the first year and connection to their faculty mentor (Cotton & Wilson, 2006; Fusani, 1994).

Faculty, staff, and administrators should recognize the importance of providing individualized support to students with disabilities. Student's identities are malleable, especially during their first year of college, and faculty mentors have the ability to shape mentees during this time. Students with close relationships to faculty are more likely to persist at the institution and achieve academically (Pascarella & Terenzini, 1977, 1978, 1979). Pascarella and Terenzini also found withdrawal was related to the frequency of informal (non-classroom) student-faculty contact and the frequency of

interactions with faculty to discuss intellectual matters. Developing intimate relationships between students and faculty members in the same academic discipline should be a top priority.

Students with Disabilities Encounter Transitional Issues

The transition from high school to college can be profound for some students with disabilities. Despite legal protections and campus resources, students with disabilities may face challenges with their academics and the accommodation process, which can make the transition difficult during the first year. Additionally, faculty and staff members who engage with students with disabilities cannot assume that these students fully understand their own advocacy rights and responsibilities in postsecondary settings, which is different from the process in high school.

Students with disabilities have additional academic hurdles other students do not encounter. Some use this energy to be productive and prove to themselves and others they are capable of being successful in college. The change in academics from high school to college is significant for many, but this is especially true for students with disabilities. Students may not feel prepared for the academic rigor of college due to their disability as the workload and expectations differ from high school. Student participation in faculty mentorship can result in gains in academic performance and retention (Campbell & Campbell, 1997). Eleven of the 12 students in this study indicated that, as a result of their disability, they experienced a difficult academic transition to college. It is important for students with disabilities to recognize they may face academic challenges and be proactive to seek help from faculty members and utilize academic support resources.

Tinto (1988, 1993) indicated disadvantaged students, including those with physical disabilities, are more likely to experience difficulty during the transition to college. Educators need to be aware that students with disabilities come to college with unique backgrounds and are not always fully prepared for all aspects of the collegiate experience. Simply allowing students with disabilities in the classroom with their peers who do not have disabilities does not ensure equal access to the curriculum (Burgstahler & Crawford, 2007). Students with disabilities sometimes feel obligated to prove themselves as being equal to their faculty and fellow students. Unfortunately, a nega-

tive stigma exists for students with disabilities. This is, in part, due to society's cultural perceptions about individuals with disabilities. As a result, some of these students have negative attitudes about their disability because they felt others treated them differently. This often leads to a feeling that they have to overcome their disability, rather than acknowledge it as a part of who they are. It is important for faculty, staff, and students without disabilities to understand the unique challenges faced by students with disabilities.

Previous literature has highlighted the importance of postsecondary institutions developing support systems and resources in order for students with disabilities to be successful; these students commonly struggle with academic course content, organization, time management, and study skills (Aderon & Durocher, 2007). The goal of faculty mentorship, specifically for students with disabilities, is to bridge the gap between their needs and the opportunities provided to all students. The results of this study highlighted the important role faculty mentors played in helping participants overcome the academic hurdles associated with transitioning to college; this conclusion is consistent with the extant literature regarding faculty-student out-of-class communication. For several decades, researchers have found a positive relationship stemming from faculty-student contact (Endo & Harpel, 1982; Fusani, 1994; Martin et al., 1999; Pascarella & Terenzini, 1977, 1978, 1979). This study reified the positive effect of faculty-student contact. Students repeatedly praised their faculty mentor for preparing them for their collegiate experience. This idea was also supported by Halawah (2006) who found, "close personal relationships between staff and students plays a major part in fostering the intellectual development of students" (¶ 22).

University administrators and staff members should work to provide academic resources and support systems for students with disabilities. While administrators and staff members are not directly responsible for classroom instruction, as educators, they can provide individual support and inform students about campus resources. This type of support can come from the DS staff, but should not be limited to one office. All faculty and staff should be knowledgeable about the unique needs of students with disabilities and how to assist them. For further advancement, faculty mentors should receive proper training in assisting students with disabilities. This training needs to include information

about the postsecondary accommodation as well as campus resources.

Additionally, students with disabilities must adapt to the postsecondary accommodation process, which is often different than what they experienced in high school. This is due in part to the stark contrast in the laws governing postsecondary education for students with disabilities. "At the college level, significant changes occur in the legal rights of students, and there is a sharp reversal of parent and student responsibility" (Madaus, 2005, p. 32). At the postsecondary level, students need to understand their rights under the law as nearly all of the responsibility is transferred from the school and parent to the student (Simpson & Spencer, 2009). Faculty members should be aware of the accommodation process in case students who have not registered with the DS office disclose it to them. Faculty members should also be aware of how to provide necessary accommodations to students when they present documentation of their disability.

The accommodation process in college encourages students to self-advocate. If students need accommodations, they are responsible for providing documentation of their disability and making the formal request. This process also empowers students to be responsible to disclose their disability to teachers. As a result, while students with disabilities are going through typical transitional issues, they must additionally learn how accommodations unfold at the postsecondary level (Simpson & Spencer, 2009).

Most participants in this study were unaware when first coming to college how much responsibility was upon them in order to receive accommodation. In high school they were accustomed to parents and teachers taking the lead and in college students have to take the initiative. The staff in the disability services office and faculty members expect students to be responsible for their disability and negotiate for reasonable accommodations, rather than the other way around. In college, students must disclose their disability to the disability services office, ask for accommodations, and self-advocate.

Little research has been conducted related to the transition services leading to college enrollment for students with disabilities (Wilson, Hoffman, & McLaughlin, 2009). Most participants in this study were unaware when first coming to college how much responsibility was upon them in order to receive accommodation. Considering the drastic change in the accommodation process between high school and college, two specific

suggestions are offered regarding how to help students with this process. First, all faculty members and staff should become familiar with the accommodation process, sharing the responsibility of accommodation process with the disability services staff. Second, faculty members and staff should receive formalized training on the accommodation process. This would allow them to better understand the process and how to better assist these students, based on their individual needs.

Limitations and Future Research

This study was limited to the experiences and issues discussed by 12 students with disabilities at a single institution. A majority of participants in this program had a physical disability. This resulted in a unique theme in the findings regarding physical accommodations and getting around the campus, a theme not discussed by students with learning and/or psychiatric disabilities. While the authors of this study acknowledge the disproportionate number of participants with physical disabilities, the mentoring program is open to all students with a disability. The university where this study took place has a distinguished history of providing access to students with physical/mobility disabilities, resulting in a higher percentage of students in the study. Due to the inclusion criteria of the study, students with negative experiences were not as likely to be included as they would not have continued with the program for a full semester. Additionally, since the experiences of these students were self-reported, data could not be triangulated. However, efforts were made to minimize this by member checking and providing thick rich descriptions.

This study found that for many students with disabilities, having a faculty mentor was helpful support during their transition to college. Tinto's (1987, 1993) theory of individual departure, specifically as it relates to academic and social integration, seems to apply to this population of students. Future studies could explore in more detail how other portions of Tinto's theory, such as how pre-entry characteristics, academic goals, and external commitments may have influenced academic and social integration. It may also be useful to have a longitudinal study to better understand how the experiences of students with disabilities change over time, comparing the experiences of first year students with those of seniors.

References

- Aderon, D., & Durocher, J. (2007). Evaluating the college transition needs of individuals with high-functioning autism spectrum disorders. *Intervention in School & Clinic, 42*, 271-279. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=24737708&site=ehost-live>
- Americans with Disabilities Act of 1990, 42 U.S.C. § 12101 et seq.
- Brown, S. E., Takahashi, K., & Roberts, K. D. (2010). Mentoring individuals with disabilities in postsecondary education: A review of the literature. *Journal of Postsecondary Education and Disability, 23*, 98-111. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ906694&site=ehost-live>
- Burgstahler, S., & Crawford, L. (2007). Managing an e-mentoring community to support students with disabilities: A case study. *Association for the Advancement of Computing in Education, 15*, 97-114. Retrieved from <http://www.editlib.org/p/19814>
- Campbell, T. A., & Campbell, D. E. (1997). Faculty/student mentor program: Effects on academic performance and retention. *Research in Higher Education, 38*, 727-742. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ558379&site=ehost-live>
- Christie, N. G., & Dinham, S. M. (1991). Institutional and external influences on social integration in the freshman year. *Journal of Higher Education, 62*, 412-436. Retrieved from <http://www.jstor.org/stable/1982003>
- Cotton, S. R., & Wilson, B. (2006). Student-faculty interactions: Dynamics and determinants. *Higher Education, 51*, 487-519. doi:10.1007/s10734-004-1705-4
- Creswell, J. W. (1994). *Research design: Qualitative and quantitative approaches*. Thousand Oaks, CA: Sage.
- Creswell, J. W. (2007). *Qualitative inquiry & research design: Choosing among five approaches*. Thousand Oaks, CA: Sage.
- Crisp, G., & Cruz, I. (2009). Mentoring college students: A critical review of the literature between 1990 and 2007. *Research in Higher Education, 50*, 525-545. doi:10.1007/s11163-009-9130-2
- Denzin, N. K., & Lincoln, Y. S. (2006). Introduction: The discipline and practice of qualitative research. In N. K. Denzin, & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 1-32). Thousand Oaks, CA: Sage.
- Endo, J. J., & Harpel, R. L. (1982). The effect of student-faculty interaction on students' educational outcomes. *Research in Higher Education, 16*, 115-138. Retrieved from <http://www.jstor.org/stable/40195453>
- Fusani, D. S. (1994). "Extra-class" communication: Frequency, immediacy, self-disclosure, and satisfaction in student-faculty interaction outside the classroom. *Journal of Applied Communication Research, 22*, 232-255. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=ufh&AN=9501768&site=ehost-live>
- Getzel, E. E. (2005). Preparing for college. In E. E. Getzel & P. Wehman (Eds.), *Going to college: Expanding opportunities for people with disabilities* (pp. 69-87). Baltimore, MD: Paul H. Brooks Publishing Co.
- Halawah, I. (2006). The impact of student-faculty informal interpersonal relationships on intellectual and personal development. *College Student Journal, 40*, 670-678. Retrieved from <http://www.projectinnovation.biz/csj.html>
- Hesse-Biber, S. N., & Leavy, P. (2006). *The practice of qualitative research*. Thousand Oaks, CA: Sage.
- Individuals with Disabilities Education Act of 2004, 20 U.S.C. § 1400 et seq.
- Jacobi, M. (1991). Mentoring and undergraduate academic success: A literature review. *Review of Educational Research, 61*, 505-532. Retrieved from <http://www.jstor.org/stable/1170575>
- Madaus, J. (2005). Navigating the college transition maze: A guide for students with learning disabilities. *Teaching Exceptional Children, 37*(3), 32-37. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=15543104&site=ehost-live>
- Martin, M. M., Myers, S. A., & Mottet, T. P. (1999). Students' motives for communicating with their instructors. *Communication Education, 48*, 155-164. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=ufh&AN=1737992&site=ehost-live>
- McKay, V. C., & Estrella, J. (2008). First-generation student success: The role of faculty interaction in service learning courses. *Communication Education, 57*, 356-372. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=32708733&site=ehost-live>

- National Center for Education Statistics. (2009). National postsecondary student aid study, 2008. Washington, DC: U.S. *Department of Education, Institute of Education Sciences*. Retrieved from http://nces.ed.gov/programs/digest/d09/tables/dt09_231.asp
- Nora, A., & Crisp, G. (2007). Mentoring students: Conceptualizing and validating the multi-dimensions of a support system. *Journal of College Student Retention*, 9, 337-356. doi:10.2190/CS.9.3.e
- Pascarella, E. T., & Terenzini, P. T. (1977). Patterns of student-faculty informal interaction beyond the classroom and voluntary freshman attrition. *Journal of Higher Education*, 48, 540-552. Retrieved from <http://www.jstor.org/stable/1981596>
- Pascarella, E. T., & Terenzini, P. T. (1978). Student-faculty informal relationships and freshman year educational outcomes. *Journal of Educational Research*, 71, 183-189. Retrieved from <http://www.jstor.org/stable/27537108>
- Pascarella, E. T., & Terenzini, P. T. (1979). Student-faculty informal contact and college persistence: A further investigation. *Journal of Educational Research*, 72, 214-218. Retrieved from <http://www.jstor.org/stable/27537224>
- Patton, M. Q. (1990). *Qualitative evaluation and research methods* (2nd ed.). Newbury Park, CA: Sage.
- Skinner, M., & Lindstrom, B. (2003). Bridging the gap between high school and college: Strategies for the successful transition of students with learning disabilities. *Preventing School Failure*, 47, 132-137. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=10424061&site=ehost-live>
- Simpson, C. G., & Spencer, V. G. (2009). *College success for students with learning disabilities*. Waco, TX: Prufrock Press Inc.
- Stumbo, N. J., Blegen, A. R., & Lindahl-Lewis, P. (2008). Two mentorship case studies of high school and university students with disabilities: Milestones and lessons. *Journal of Rehabilitation*, 74, 41-51. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=hch&AN=35063572&site=ehost-live>
- Tinto, V. (1987). Stages of student departure: Reflections on the longitudinal character of student leaving. *The Journal of Higher Education*, 59, 438-455. Retrieved from <http://www.jstor.org/stable/1981920>
- Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). Chicago: University of Chicago.
- Van Gennep, A. (1960). *The rites of passage* (M. Vizedon & G. Caffee, Trans.). Chicago: University of Chicago. (Original work published in 1909.)
- Van Manen, M. (1990). *Researching lived experience: Human science for an action sensitive pedagogy* (2nd ed.). London: Althouse Press.
- Wilson, M. G., Hoffman, A. V., & McLaughlin, M. J. (2009). Preparing youth with disabilities for college: How research can inform transition policy. *Focus on Exceptional Children*, 41(7), 1-10. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=47228018&site=ehost-live>

About the Authors

Shawn Patrick received his BS degree from the University of Wisconsin Oshkosh and MA in Student Affairs Administration in Higher Education from Ball State University. He is currently a Residence Director at the University of Hawai'i at Mānoa. He can be reached by e-mail at patrick.shawnm@gmail.com

Roger Wessel received his BA degree from Lee University and M.S.Ed. and Ph.D. in Higher Education from Southern Illinois University at Carbondale. His experience includes working in multiple student and academic support offices (i.e., enrollment, evaluation, career, orientation). He is currently a Professor of Higher Education in the Department of Educational Studies at Ball State University. His research focuses on the academic and social integration of undergraduates, specifically students with disabilities. He can be reached by email at rwessel@bsu.edu

Group Member or Outsider: Perceptions of Undergraduates with Disabilities on Leisure Time Physical Activity

**Mary Ann Devine
Kent State University**

Abstract

College provides students with many opportunities to achieve academic success and enrich other aspects of their lives. Participating in campus activities can reduce stress, create social connections, promote healthy active living, and broaden civic engagement (Lindsey & Sessoms, 2006; Watson, Ayers, Zizzi, & Naoi, 2006). Studies noting these benefits appear to include only students without disabilities, particularly investigations that addressed physical recreation options. Thus, the purpose of this study was to explore the perceptions of college students with disabilities on their access to and engagement in leisure time physical activities on their campus. Using a qualitative method, 16 full-time undergraduate students were interviewed. Findings included themes of right fit, quality of life, and connectedness. Recommendations focusing on the individual and the educational environments in which they live are provided.

Keywords: Physical activity, leisure, inclusion, people with disabilities, theory of involvement

The college years typically are an important formative time for young adults who seek postsecondary education. It is not only a time for career preparation but a life phase when lifelong behavior and choice patterns develop. In particular, these years tend to be a time when young adults engage in a high degree of leisure time physical activity.

Most college campuses are designed to promote activities such as walking, cycling, and hiking to encourage an optimal level of physical activity. Additionally, it is more common than not for campuses to have recreation and wellness centers where students can engage in a wide range of fitness, sport, and physically active recreation. Along with these centers, there are often many options for engagement in physical activity such as outdoor recreation trips (e.g., hiking, kayaking, skiing), intermural sport clubs, and a variety of fitness and wellness classes (e.g., Zumba, yoga). Together, these opportunities offer many options for college students to be physically active. There is lim-

ited research, however, on the extent and manner of how students with disabilities utilize campus-based recreational and fitness activities. The purpose of this study was to explore the perceptions of college students with mobility and sensory impairments on their access to and engagement in leisure time physical activities on their campus. Within this frame, perceived barriers and facilitators to recreational options were examined.

Review of Literature

College experiences not only prepare students for careers, but prepare them to be active and engaged community members upon graduation (Elkins, Forrester, & Noel-Elkins, 2011). While attending college, students can learn valuable skills and gain various life experiences such as leadership skills, living and working with people from different backgrounds, preparation for civic engagement, and building a pattern of healthy active living. These skills and experiences gained in the late adolescent and young adult years

are important because they set the stage for life-long behavior patterns (Elkins et al., 2011). For the typically developing student, research in higher education has extensively studied variables that contribute to student retention and graduation. One important predictor is social involvement in student life beyond the classroom. Greater involvement in student life (e.g., political, civic, residential, social) leads to greater academic success (Gardner & Barnes, 2007; Henchy, 2011).

Student involvement can and should include leisure engagement, activities that are chosen by an individual to enhance life satisfaction and quality of life. Leisure activities involve behavioral, affective, and cognitive engagement in a pursuit to achieve self-fulfillment and quality of life (Mannell & Kleiber, 1997). In support of previous findings, studies examining leisure involvement have reported that connection to others and spending time with people is a more important predictor of leisure engagement than the activity itself (Samdahl & Jacobovich, 1997). These are important findings for academic institutions to consider when addressing student success in and beyond the classroom, especially for students with disabilities.

College-based options for physical activity are enhanced by the ease and proximity students have to facilities and services. Often student recreation, fitness, and wellness facilities are centrally located in an area that is easily accessible for the students. They typically offer a wide variety of options to meet the diverse needs and interests of the student body. According to Lindsey and Sessoms (2006), student recreation and fitness options can include the typical cardiovascular, strength, and conditioning options as well as non-traditional options such as indoor rock climbing walls, vortex pools, fitness classes, outdoor recreation, and intramural team sports. With such a large variety of options, it could be assumed that participation in these activities would be significant. According to Watson, Ayers, Zizzi, and Naoi (2006), about 78-88% of full-time and part-time college students use these resources to engage in physical activity. Of these participants, most engage in the cardiovascular, strength, and conditioning options including classes as well as fitness equipment (e.g., weight lifting, stationary bikes, treadmills). While these data indicate a large percentage of usage of facilities and services, it does not delineate the number of college students with disabilities who engage in university-based physical activity.

According to theory of involvement, participation in extracurricular activities contributes to academic success and success beyond college (Astin, 1999). Specifically, this theory assumes that as extracurricular involvement increases, students' learning and sense of belonging increases. However, this theory assumes that involvement is predicated on one's belief that his or her needs will be met. Elkins et al. (2011) found that students who participated in campus recreation and sports perceived a greater sense of campus community than those who did not, thus developing a sense of connectedness to place and others. Student participation in extracurricular activities also leads to friendships that continue beyond the social activity and college years (Tinto, 1993).

These findings may be true for college students with disabilities; however, few studies examining these variables have been conducted. Blinde and Taub (1999) found that college males with disabilities who participated in extracurricular sports or fitness activities felt empowered. This empowerment enhanced their perceptions as a social actor particularly relative to experiencing a sense of accomplishment and social inclusion. Another study examining engagement in extracurricular activities and use of a campus-based student recreation center on student success found that it was beneficial for student recruitment and retention, enjoyment in participation, and improved quality of life (Henchy, 2011). Henchy also found that students experienced a variety of social benefits from using a campus-based student recreation center such as feeling at home, an increased sense of belonging, and opportunities to develop friendships. While Henchy discusses some demographics of the study's subjects, there is no indication that any of the respondents were students with disabilities.

In another investigation, Miller (2011) examined the impact of social belonging and retention on the use of student recreation facilities. He found that student recreation centers provided strong emotional ties to the university and a reason to persist. Miller also reported that students felt that a student recreation center was essential for creating social bonding. Respondents felt that involvement in the recreation center created a sense of belonging to the university, a sense of community, and an increased commitment and trust in their peers. While Miller had a strong rate of return (76%) of the surveys and a fairly equal male/female respondent ratio, there was no indication whether any of the

respondents had a disability. In an examination of characteristics of users and non-users of campus recreation centers, Miller, Noland, Rayens, and Staten (2008) used a random sample of undergraduate students and asked them to self-identify personal characteristics. These characteristics included typical demographics (i.e., age, gender, race/ethnicity) as well as living situation, marital status, grade point average, membership in sorority or fraternity, participation in intercollegiate athletics, but did not include disability.

The lack of studies examining the role of extracurricular activities and use of student recreation facilities on academic success of students with disabilities is problematic on several levels. Leisure requires behavioral, affective, and cognitive engagement for an individual to understand the role of leisure in his/her life. For students with disabilities, recreation contexts are forums from which many skills can be learned and practiced. Indeed, Devine and O'Brien (2007) found that with viable opportunities, adolescents with disabilities can make and sustain social relationships with their typically developing peers. Second, college students often rely on recreation activities as a means for reducing stress. Without involvement in such activities, students with disabilities could experience a high degree of stress with limited options for decreasing or buffering it (Devine & Koch, 2003). Devine and Koch asserted that engagement in recreation activities can be a training ground for individuals with disabilities for future careers and provide access to informal job networks. A lack of inclusion of students with disabilities in college life beyond the classroom decreases the potential for social acceptance by their typically developing peers. Given the increased diversity on college campuses, in the workforce, and community life, social acceptance is an important component of inclusion of people with disabilities (Devine & Lashua, 2002). Thus, engagement in leisure time activities by college students with disabilities has the potential to produce substantially better prepared individuals for their college experiences as well as life after college.

Lastly, inclusion of students with disabilities on college campuses can be viewed from a social justice perspective in providing valuable opportunities for these students (Tollefsen, 2010). Inclusion in leisure time physical activity can have social, physical, and psychological benefits while in college and throughout life. Given the recent dialogue about the importance of engagement in physical activity for lifelong health,

offering a variety of options for physical activity on college campuses is not only an important step for promoting healthy active living for the typical college student, but for developing a lifelong commitment to being physically active.

In general, people with disabilities are less likely to engage in regular physical activity than those without disabilities, yet they have the same needs to promote their health, prevent disease, and reduce secondary conditions to their disability. Several reasons for inactivity have been identified, including a lack of knowledge of the importance of physical activity, limited transportation to and from these sites, inaccessible facilities and equipment, and attitudinal barriers on the part of those without disabilities (Rimmer & Braddock, 2002; Rimmer, Riley, Wang, Rauworth, & Jurkowski, 2004). Do college students with disabilities encounter these same reasons for inactivity? Given the prevalence of campus-based recreation and fitness facilities as well as the lifelong preparation these facilities can offer to students, this study sought to explore and understand the perceptions of college students with disabilities on their access to and engagement in leisure time physical activities on their campus. The research questions that guided this study were: What are the *perceptions* of college students with disabilities relative to accessing and engaging in leisure time physical activities on their campus? What are meaningful and valued aspects of participation in physically active leisure on their campus? Secondary aspects explored in the first research question centered on perceptions of *barriers* and *facilitators* encountered when accessing and engaging in leisure time physical activities on their campus.

To best understand the perspectives of college students with disabilities, a qualitative investigation was undertaken, as recommended by Miller (2011), to develop a body of knowledge regarding the benefits of student recreation centers for a university. Criteria for participation in this study included: (a) must be enrolled full-time or $\frac{3}{4}$ time in a four-year institution, (b) the student's college campus must have a student recreation/wellness facility, and (c) the student had to have a mobility or visual impairment. Only students with mobility and visual impairments were sought for participation in this study because individuals with these disabilities have historically encountered a greater breadth of barriers to engagement in physical activities than individuals with intellectual, hearing, or mental health disabilities (Ashton-Shaeffer, Gibson,

Autry, & Hanson, 2001; Wilhite & Shank, 2009). Engagement in leisure tends to involve a broader range of accommodations (e.g., programmatic, physical, visual, tactile, auditory) for individuals with visual and mobility impairments than are needed to accommodate people with intellectual, hearing, or mental health disabilities (Blinde & Taub, 1999; Lundberg, Taniguchi, McCormic, & Tibbs, 2011). For instance, Rimmer et al. (2004) reported that individuals who used mobility devices (e.g., wheelchairs) and individuals with visual impairments needed programmatic, environmental, and architectural accommodations, whereas individuals with intellectual, hearing, and mental health disabilities tended not to need all three types of accommodations. One of the primary intents of this study was to understand the perceptions of college students with disabilities about accessing and engaging in leisure time physical activities. The purpose of the research questions was to understand a breadth of barriers such as those already identified. Additionally, given the accommodations needed and the growing body of physical activity and disability literature, one assumption upon which this study was based is that students with mobility and visual impairments would tend to engage in leisure time physical activity less than those with intellectual, hearing, and mental health impairments. Thus, given these factors, this inquiry sought only students with mobility and visual disabilities for examination.

Recruitment was conducted through the university's student accessibility services using an electronic message. Students interested in participating were instructed to contact the researcher directly. After initial contact, a screening was conducted to determine if the student met the criteria of the study. A snowball method was also used to gain additional research participants. Research participants were 16 undergraduate college students from ages 18-24 attending five different universities near the Great Lakes in a Midwestern state. See Table 1 for demographic information about the participants. Participants who agreed had a variety of ethnic backgrounds and disabilities. Most had lived with their disability from birth or for an extended period of time, suggesting participants were most likely well-adjusted to their disability. Nick was the exception to this sample as he sustained double leg amputations as a result of engagement in military interventions. At the time of his involvement in this study, Nick had been living with his amputations for three years. All participants had been in college for at least one year. Eleven

lived in residence halls on their respective campuses and five lived in homes or apartments within one mile of campus. Exactly 50% of the research participants were currently engaging in some form of leisure time physical activity and 50% were only occasionally (e.g., once/month) engaged. Engagement in leisure time physical activity was operationalized as participation in an activity that required physical activity at least three days weekly for a minimum of 30 minutes.

In-depth, open-ended interviews were conducted with participants. A written interview guide was developed based on (a) a literature review of physical activity and people with disabilities and participation in college campus recreation centers, (b) ADA guidelines for accessibility, and (c) anecdotal information from students with impairments about access to physically active recreation options. From this, 12 guiding questions were developed for interviews with research participants (see Table 2). Interviews were conducted on an individual basis lasting from 45-70 minutes. They were recorded, transcribed verbatim, and coded thematically using NVivo software to organize the data.

Data Analysis

The analysis of the collected data was conducted using qualitative data analysis (Strauss & Corbin, 1998) and Classical Grounded Theory (Glaser, 1978) methods. The qualitative analysis gave the researcher a starting point to analyze data by identifying patterns, behaviors, and perceptions of the research participants. Grounded Theory provided the framework for constant comparison of themes and patterns. The themes and patterns were compared to participant perceptions to then frame results in a theoretical model grounded in the data.

Data were analyzed in several layers by the researcher and two research assistants as recommended by Strauss and Corbin (1998). First, transcripts were read and coded line-by-line, examining the data for themes. Next, initial coding was examined to identify common and consistent themes across research participants. According to Glaser (1978), the last layer of analysis identified relationships and interactions between themes to more fully understand the data and to develop categories grounded in the data.

Trustworthiness, as it relates to reliability and validity of the data, is always an issue worthy of addressing in qualitative inquiries. As guided questions were developed and data gathered, the researcher and assistants acknowledged and reflected on their bias.

Table 1

Information on Study Participants

<u>Pseudonym</u>	<u>Age</u>	<u>Gender</u>	<u>Ethnicity</u>	<u>Disability</u>
Clare	18	F	Caucasian	Paraplegia, T-8
Kate	19	F	African American	Cerebral Palsy
Jane	18	F	Caucasian	Spinal Muscular Atrophy
Bryan	21	M	Caucasian	Macular Degeneration
Abe	22	M	African American	Blindness (birth)
Ellen	19	F	Asian American	Cerebral Palsy
Lydia	24	F	Caucasian	Multiple Sclerosis
Jay	22	M	African American	Paraplegia, T-10
Craig	24	M	Caucasian	Spina Bifida
Kyle	23	M	Asian American	Paraplegia, T-6
Maryn	20	F	Asian American	Cerebral Palsy
Ashley	18	F	Caucasian	Blindness (birth)
Kevin	19	M	Caucasian	Spina Bifida
Susan	20	F	African American	Cerebral Palsy
Denise	19	F	Caucasian	Paraplegia, T-6
Nick	23	M	Caucasian	Double AK Amputation

Table 2

Sample Interview Questions

1. What do you like to do in your free time?
2. What type of physical activity do you participate in on campus?
3. What are your reasons for doing (not doing) these activities?
4. What are things or features that really help or make it possible for you to do these activities? What gets in the way or what are the barriers to doing these activities?
5. What do you gain or get out of these activities? What about them is valuable to you?

During data analysis, the researcher and assistants discussed accuracy of themes, verifying emerging themes with data until consensus was achieved. Credibility of findings using member checks was accomplished with research participants via telephone calls and electronic mail correspondence. Feedback and additional comments from research participants was used as additional data (Strauss & Corbin, 1998). A researcher not associated with this study was used to examine and confirm the data analysis process, codes, and categories produced through data analysis (Guba & Lincoln, 1985). The resulting analysis was agreed upon with this triangulation of analysis via the researcher's interpretation, member checks from the research participants, and outside researcher.

Results

The primary purpose for this study was to investigate perceptions, meaning, and value of engagement in on-campus leisure time physical activities for college students with mobility and visual impairments. The intent of investigating these constructs is to better understand barriers and facilitators experienced by these students. The first question asked the research participants to discuss their perceptions of access and engagement in campus based leisure time physical activity. The theme that emerged centered on the experience being the *right fit* for the person given his or her needs, interests, and sense of perceived acceptance by those without disabilities.

Right fit. A common thread through all 16 research participants was the notion of the physically active leisure activity being in alignment with their needs, interests, desires, and resources. This theme had several dimensions but, overall, centered on the tasks, skills, resources, and effort needed to engage in an activity. This theme also emerged as a factor that facilitated engagement in leisure time physical activities on their campus. Specifically, if the experience was a right fit, participants were more likely to engage in it on a regular basis. If it was not the right fit, participants perceived it as a barrier to engage in leisure time physical activities on their campus.

Maryn, a 20 year-old woman with cerebral palsy (C.P.) stated, "it [the activity] works if it is the right fit on lots of levels. Like, it has to be something I'm interested in first of all. It also must be accessible and feasible." She felt an activity was feasible if the

amount of effort she had to put forth matched her level of energy and stamina. Maryn indicated that she did not participate in activities regularly mostly due to the effort the logistics took to get to the student recreation center, stating "even once I get there, it takes a lot of effort to go from the bus stop to the rec[recreation center] and then get around in the building because it's so big." Lydia, a 24 year-old woman with multiple sclerosis (m.s.) expressed a perception of engagement in physical activity being "daunting." Specifically, she felt that, most times, she was overwhelmed with what it took for her to participate in a physical activity on her campus. According to Lydia:

I like to dance and used to do a lot of it before my m.s. So, I signed up for a Zumba class and just felt it took too much to do it, from getting to the building, to the locker room, to the studio; I was worn out before the class even started.

She and others also discussed how the pace of fitness classes was a barrier in that they had difficulty keeping up with the instructor. Abe, a student with a visual impairment, indicated that the layout or design of a facility was important to being a right fit for him in that a facility that has taken the use of people with visual impairments into account allowed him to use his auditory cueing skills. Ellen, a 19-year-old woman with c.p., conveyed frustration with not being able to keep up with the instructor in a fitness dance class, "I felt more like a spectator than a participant."

Kevin, a 19-year-old man with spina bifida (s.b.) who participates regularly in physically active leisure, discussed the right fit in terms of being able to do the activity and meet his personal needs. He said, "I love to take risks and kinda 'get out there,' but I gotta be able to, you know, take care of myself." He went on to describe how he likes to try high risk adventure activities, but the activity must be feasible relative to the length of time it takes to do the activity, the availability of adaptive equipment, and proximity to accessible restroom facilities so he can attend to his personal needs regularly. Kevin did state that he likes to participate in indoor rock climbing using climbing walls because it is challenging and he can do it in a length of time that meets his personal needs. Clare, an 18-year-old woman with T-8 paraplegia, perceived engagement in physically active leisure centered on meeting her needs and interests. She described herself as being a person

who liked to “escape to my recreation so I swim and do yoga.” She sought those activities because they fit what she was able to accomplish and wanted to gain from the experience; specifically, she engaged in them to gain the solace she needed.

Another dimension of the *right fit* theme was the idea of fitting in. Jane, Jay, and Clare, all of whom use wheelchairs to ambulate, discussed the experience as being the right fit if they perceived that there was a welcoming atmosphere. Jane, an 18-year-old woman with spinal muscular atrophy, did not participate in physically active leisure on a regular basis because “it makes me feel like I stick out like a sore thumb.” She stated that it made her feel like she was on display and was always being watched. Jane acknowledged that she knows she should be physically active for health reasons, but did not do so because she felt like it drew negative attention. This dimension was also echoed by Jay, a 22-year-old man with T-10 paraplegia, but from a different perspective. He regularly engaged in physically active leisure because:

It makes me feel like a regular guy. Ya know, like any other 22-year-old in there lifting [weights], playing basketball. I need to do this to stay healthy, ya know, and don't mind if people are watchin' [me] cause it makes me want to lift more or make that long shot. Like I'm giving them a show and showing 'em what I can do, just like any other guy.

Jay claimed that feeling like he fit in when engaging in leisure time physical activities facilitated his regular participation. Clare expressed that she needed few adaptations to do her chosen activities (swimming, yoga) and felt most comfortable when staff or teachers took the accommodations she needed in stride. She described engagement in her yoga class as being flexible to adaptations she needed:

No one seems to care that I hop in and out of my chair to do it. It's like when they stand and do stuff, I sit and when they get on the floor I do, too. I don't know if it would be like that if I was in another type of class, maybe it would. But, in my yoga class, no one seems to care and the teacher and I adapt as we go along.

The approach or attitude teachers and staff at campus recreation and fitness facilities take to the modifications

or adaptations she needs were factors Clare considered important to her regular engagement.

For some, the *right fit* had a clear dimension that related to specific accessibility needs. These needs varied according to the participant's disability, but most indicated that if their individual accommodations needs could be met, the activity was a right fit. As students with visual impairments, Abe, Ashley, and Bryan discussed needing someone to orient them to the building, surroundings, and equipment. Ashley said that she loved hiking and biking, but did not like being in large buildings like the student recreation center on her campus. According to Ashley:

I love being outdoors and hiking and biking, tandem [bicycle] of course, are great for me. But when I'm biking, my front person better describe where we are, where we're going, what's around us, and all that stuff. I don't like being surprised by a big bump or sharp turn.

She described feeling “lost” and “not really engaged” in the activity if her co-cyclist did not describe the surroundings, people in the area, or other aspects of the environment. Neither Abe nor Bryan participate regularly in leisure time physical activities because they felt the large recreation/fitness facilities on their campuses were daunting. Bryan stated that he needed a thorough orientation to large areas and buildings and found it difficult to use sound cues to navigate in the recreation center on his campus. Abe had a similar perception and felt his campus recreation center was not a place where he felt welcomed or included for several reasons, one being that it was not designed for people with visual impairments. According to Abe, “Sounds bounce all around in there like a bunch of ping pong balls. It's also really open so it's hard to really figure out where I am. If I go there with someone else it's okay, but really can't go there by myself.” Nick, a 23-year-old-man with double amputations who used a wheelchair for mobility, expressed the opposite perception in that he felt the facility and equipment was accessible and met his accommodation needs. However, he was unsure if he could be included in some of the outdoor recreation programs and trips offered at the recreation center on his campus. Nick stated:

I love to be in the outdoors and, before I lost my legs, I hunted, canoed, kayaked and all that stuff.

I see kayak trips and stuff offered through the Adventure Center and don't know if they could or would be able to fit me in. It's one thing to go there and uh, lift [weights], but another if I want to go a step further.

Participants who use wheelchairs discussed needing adequate space to meet their specific needs relative to this dimension of a *right fit*. Kyle, a 23-year-old male with a T-6 spinal cord injury, described needing additional space between weight and exercise machines to maneuver his chair and transfer to machines. Jay and Clare stated that space to move about in the locker rooms and accessible features such as showers was important to them, but viewed these aspects as something they expected to be in place.

Meaningful and Valued Aspects of Participation

Participants were asked about the meaningful and valued aspects of participation in leisure time physical activity on their campuses to understand what they held important about these experiences. The other purpose of this question was to delve into their perspectives of social justice relative to inclusion in this aspect of college life. The interest was to understand whether and to what degree leisure time physical activity provided a valued and valid/meaningful experience. Two themes emerged in this portion of the inquiry, *quality of life* and *connectedness*.

Quality of life. This theme had a range of dimensions, from enhancing quality of life to a reminder of life prior to acquiring a disability. Clare and Ashley were enthusiastic in discussing the value and meaning of engagement in their chosen leisure activities. For them and others this engagement enhanced their quality of life. Clare stated, "For me swimming is an equalizer. I can be as competitive or as determined to push myself as anyone else in the pool and that's important to me." Ashley claimed that she did not do activities that she was not excited about, "I love to be outdoors so anything that gets me outside, I'm in for. For me it means freedom from built environments, which sometimes I find confining, like the walls close in on me." She went on to say that if she could not get outdoors she would "not be loving life." Denise, a 19-year-old female with T-6 spinal cord injury, who loved dancing, discussed the narrow view she felt her peers had about her abilities and capabilities. Specifically she stated that her experiences led her to believe that her

peers without disabilities felt there is only one way to execute a skill such as dancing. Denise stated:

I like to broaden people's ideas of how stuff can be done and what I can do. Like there's not one way to dive or dance. I love to dance and use my chair to do it. And even though I use my chair, it's still dancing. Like, you should have seen my Zumba teacher's face the first time I showed up. She was like, 'Really? You are going to do this?' And I just started following what they were doing and moving in my chair and stuff. It was a real rush.

The common thread between these students was that they valued being able to do these activities. While their reasons for valuing their leisure time activities varied, they held a high degree of importance in their lives.

The other dimension of this theme highlighted the experiences some have living with a disability. In particular, engagement or lack of engagement in leisure time physical activity brought to light the lack of opportunities, equity, or differences between these students and their peers without disabilities. Lydia described her engagement in activities as "lame." By that she meant that, compared to the activities she did before her onset of m.s., what she currently engaged in was less rigorous or interesting to her. "I look at what other 24-year-olds are doing and what I used to do and what I'm doing is just lame. It just always reminds me of what I can't do any more." Lydia stated that she felt very self-conscious about her participation in any physical activity. However, she continued to do so and valued it because she knew it was important to staying healthy and countering the effects of m.s., but it was not something she felt that enhanced her quality of life. Nick expressed a similar perspective in that participating in physical activity was a reminder that his life is different since his limb loss, "I was always really active like playing paintball, hunting, mountain biking and that kind of stuff. I can't do that stuff now. Or if I do, it will be different."

When probed about trying the things he used to do, Nick responded, "I don't know if I will like it the way I used to and I just haven't 'gone there' yet to try those things. Um, uh, I might not like them. I kinda miss doing them and I just haven't 'gone there.'" Others talked about having opportunities for inclusion in valuable and valid activities, particularly in comparison to students without disabilities. Susan (20) and Kate

(19), females with spastic c.p., discussed the lack of opportunity and equity in what is available to them. Susan said, "I look around at the rec[reation center] and feel there's very little for me to do here. About the only thing I can do is swim. Then I look at the program book and again find few things I can do." When probed as to what she would value doing, she offered, "Chair exercise classes would be good or group line dancing or something that I could use the skills I have." Kate raised a point related to equity in that she was paying for her campus recreation center and services with the fees she paid, but felt there was little in which she could engage. According to Kate, "I can't get excited or interested in things that are not designed to include me. They [activity options] do nothing for me."

Interestingly, Susan and Kate also described a disability sub-culture that does not encourage people with disabilities to be physically active. Kate said that when she was growing up she was never encouraged by parents, teachers, or medical personnel to be physically active so the idea of participating in leisure time physical activity was a fairly new concept for her. Susan shared this perspective and felt that this sub-culture contributed to the low expectations people without disabilities have toward the abilities and capabilities of people with disabilities to be physically active. Craig, a 24-year-old male with spina bifida, felt that others did not view him as someone who needed or wanted to participate in physical activity. He said that when he has gone to the campus recreation and fitness center he feels one of two ways, "I feel like I either 'stick out like a sore thumb' or I'm invisible." When probed for clarification, Craig said that when he lifts weights or uses the hand cycle, everyone is watching him and at other times he feels people look past or ignore him.

Connectedness. The second theme in this category was the notion of the ways in which leisure time physical activity promotes social connection to others. The meaningfulness of leisure time engagement in physical activities appeared paramount to this theme. Specifically, the participants talked about what the activities did for them socially and emotionally as well as physically, the role the activities played in their lives, and the role of others in the engagement process.

Several participants discussed the ways in which involvement in physically active recreation helped to manage and decrease stress. Kevin described it as his "escape time" in that engagement in physical activity helped him to take a break from the pressures of school.

He stated that it was not just the activity that he went to his campus recreation center for, but to "joke and talk with others. Sometimes we just talk about stupid stuff, but it feels good not to always be talking about school." Abe said that when he did do something physically active, he felt less stressed; "I know I should go there [recreation center] more often, 'cause when I do I feel much better; like when the pressure is building I should just head there to get a break." Ashley explained the meaningfulness of the social aspect of her engagement, "I don't do anything without other people, like I feel like what's the point? I like to mostly do outdoor stuff but if I have to I'll do indoor stuff if that's what others want to do." Denise felt the way to make new friends was through the dance classes she participated in, "We have something in common to talk about and maybe do together. It's like meeting and making friends who have that thing that connects them already."

Another dimension of this theme was the *role* connectedness played in their lives when engaging in leisure time physical activities. Many of the participants discussed how involvement helps to meet others, whether it is peers with or without disabilities. Clare expressed that participation in activities provided an opportunity to show her peers without disabilities what she was capable of doing. Clare stated, "Sometimes I feel people have really low expectations of what people who use chairs can do so I love to show what I can do." Jay shared a similar sentiment as Clare, but also expressed that being engaged in physically active recreation created a sense of belonging, "You know, like I'm a part of things that go on, on campus. Like I can go to the rec *and* to watch the basketball games." Maryn and Bryan described their small social circles and how these narrowed the range of overall leisure activities they engaged in. Both said they felt uncomfortable doing the social activities on campus (e.g., concerts) and that, if they were more involved in campus recreation activities that might not be the case. Nick stated that participating in physical activities on campus gave him something to talk about with others, "Like, before I was injured, that was a lot of what my buddies and I talked about, hunting and kayaking and stuff. I can talk about weights and stuff with them [others who are lifting]." Even though Ellen felt it difficult to keep up with the dance instructor, she said it was a topic she could use to connect with others. Ellen said, "I can see like when everyone is having a hard time with the steps and stuff I can talk to the others about

it, like, 'Man, that was wicked,' and we'll have that in common."

Several participants described the role of their engagement in campus-based leisure time physical activity as giving them the confidence to try other things. Kate stated that even though she did not participate very much in the physically active opportunities, having done a few things gave her the confidence to join a sorority. She claimed her confidence stemmed from the positive interactions she had with her peers and felt the more social aspects of campus life would work better for her given the nature of her disability. Kevin described how his involvement in rock climbing has given him the sureness to try other activities, particularly outdoor pursuits. He stated, "I'm strong enough to rock climb so I figured I could do mountain biking as well with a hand cycle. So there was a trip last spring so I went. It was cool, everything was cool." Jay raised a negative aspect of the role his engagement played, that being creating what he termed as a "hero syndrome." By that he meant that that there was a perspective his peers without disabilities expressed to him that made him feel like he was extraordinary for engaging in activities. Even though he voiced feeling quite included and comfortable engaging in several physical activities, he also experienced his peers saying things like, "Dude, you are so brave," "It is so cool you do this; I don't know if I could," and "I don't know how you do it man, you are really awesome." He said comments like these left him feeling like he was "on the outside looking in" where he was compared to others based on his disability.

Discussion

According to the study participants - college students with physical or sensory disabilities - their perceptions of engagement in leisure time physical activities on their campus can be understood through the contexts of a right fit and the meaningful and valued aspects of participation. Through their lens, we can better understand their perceptions based on their individual needs, leisure interests, aspects of quality of life, and the meaningfulness of feeling connected.

Right Fit

The *right fit* was an overriding theme that emerged from all participants, but with various dimensions. One of the more meaningful outcomes of this study

was the insight into how an activity had to be the right fit given the individual's personal needs (e.g., personal hygiene), adaptation needs (e.g., accessible equipment, facility orientation), and leisure interests. In general, people with disabilities are less likely to participate in physically active recreation or fitness on a regular basis (Rimmer et al., 2004). Activities not meeting the personal, adaptational, or leisure interests may provide practical and theoretical explanations for low involvement of people with disabilities in physically active leisure. From a theoretical perspective, if students do not feel their needs or interests are taken into consideration, they are less likely to be involved in these types of activities (Astin, 1999).

Theory of involvement also asserts that student learning and development are directly proportional to the quality and quantity of student involvement and engagement in a program. In other words, for students to learn and grow, they need to actively engage in their environments. Milem and Berger (1997) found that social integration on college campuses was more influential in predicting persistence to earn college degrees than academic integration. If students with disabilities are not actively engaged in leisure time physical activity on their college campuses, then they will gain little to nothing from this aspect of college life.

Quality of Life

Another dimension of a lack of engagement in leisure time physical activity is what some participants described as a sub-culture that does not encourage people with disabilities to be physically active. This subculture was raised when participants were asked to discuss meaningful and valued experiences. Their comments led to the emergence of the *quality of life* theme. Evidence supporting this perception of a sub-culture of inactivity was found on several dimensions. For instance, two participants discussed not being encouraged by family members or others to participate in physically active endeavors; thus, it was not a valid component of their life. Others discussed a lack of options available to them for active engagement and a perception that programs and facilities were not designed with them in mind. For instance, the students with visual impairments indicated that the facilities were overwhelming in size, making auditory cues difficult. Another dimension of this sub-culture is the low expectations people without disabilities expressed about what those with disabilities can accomplish. This

was evident in descriptions of the “hero syndrome” where any type of engagement was viewed as extraordinary. This outcome supports previous findings that attitudinal and cultural barriers can prevent people with disabilities from participating in physical activities (Rimmer et al., 2004). Lundberg et al. (2011) reported that negative labeling, stigmatizing, and stereotyping of people with disabilities were barriers to participation in adaptive sport and recreation activities. Specifically, Lundberg et al. reported that people with disabilities perceived less was expected of them physically and mentally by society. This attitudinal barrier resulted in not only fewer activity options, but a lack of interest and motivation to pursue sport and recreation activities. Addressing this requires a shift in perceptions about people with disabilities from viewing them as passive spectators of activity to engaged participants. Another conceptual area that may explain this finding is the notion of social justice.

Social justice is founded on the tenants of respect, dignity, and equal opportunity. This also encompasses the right to fair treatment and a share of the benefits of society based on the foundations of human rights and equality of all people (Lindsey & Sessoms, 2006). Smart (2001) offered parameters relative to understanding social justice and individuals with disabilities: (a) everyone receives *equal treatment*, (b) everyone receives what he/she *earns*, and (c) everyone receives what he/she *needs*. Overall, these parameters mean the opportunity for valuable and valid life experiences (Silva & Howe, 2012). A lack of social justice for individuals with disabilities may offer insight into the notion of a sub-culture of inactivity. In particular, social justice may explain the data that pointed to a lack of equity in opportunities, in building design that limited engagement and program offerings that had few if any options for the inclusion of people with disabilities in the activities. What is clear from this study is that opportunities and access to physically active leisure time activities is not equal between students with and without disabilities. This is problematic because it limits the rights and opportunity of students with disabilities to grow and develop as human beings including learning skills, providing the opportunity for mutual development of social acceptance, and exercising their option to have a healthy active lifestyle. Leisure environments can be contexts that connect people with and without disabilities and promote positive attitudes and social acceptance (Devine, 2004; Devine & Wilhite, 1999;

Lundberg, et al., 2011). Applying social justice by promoting leisure time physical activity for college students with disabilities frames this approach in offering equitable valuable and valid leisure experiences (Devine & Piatt, 2012; Silva & Howe, 2012), thus enhancing the students’ quality of life.

Connectedness

The last theme that emerged from the data was *connectedness*. Participants noted that they engaged in leisure time physical activities not only for the physical benefit, but also for the social and emotional benefit they gain from the activity. Connectedness when engaging in physical activities aided in decreasing stress and creating bonds with others. Leisure environments are known as contexts where relationships and bonds are built (Kleiber, 1999), whether a person has a disability or not. Lundberg et al. (2011) reported that participation in sport and recreation provided people with disabilities a peer group and social support. However, these individuals were participating in disability-only activities, not inclusive options with their peers without disabilities. Staeger-Wilson and Sampson (2012) reported that students with disabilities felt more connected to their university and that they were valued members of the university community when the institutions took their needs into consideration when designing recreation facilities and programs. Connectedness also helped students with disabilities meet their peers who had common leisure interests around which they could connect. For instance, Nick felt that being involved in weight lifting activities gave him something to converse about with his peers. Some participants reported that their involvement empowered them to do other activities, made them feel more connected to campus, and gave them opportunities to counter stereotypes.

Leisure time physical activity can improve quality of life, health, self-efficacy, and community involvement (Devine, 2004; Giacobbi, Stancil, Hardin, & Bryant, 2008; Lundberg et al., 2011). Giacobbi and colleagues reported that other people were a driving motivational force in continued involvement in physical activity, a behavior important for healthy active living. In addition, this study supports what has been found in previous studies, which is that the social aspect of a leisure activity was more important to individuals’ engagement than the activity itself (Samdahl & Jekubovich, 1997). Thus, the social aspects of physical

activity, such as connectedness, should be treated with equal importance as the physical outcomes.

Barriers and Facilitators to Participation

A secondary purpose of this examination was to understand the perceptions of college students with mobility or visual impairments on barriers and facilitators to participating in leisure time physical activity. Directly and indirectly, the participants offered a number of perceptions that inform this segment of the study.

Most participants shared similar perspectives on aspects that facilitated their engagement, particularly when discussions centered on the atmosphere of an environment. Generally, those who participated in physically active leisure regularly noted the importance of a welcoming atmosphere. They used terms such as “fitting in” and “just like any other guy,” and noted the positive attitudes of staff. Participants also discussed the importance of the accessibility of the facility, equipment, and layout of the facility to their participation. Accessibility also included having someone available to orient students to the facility and its amenities. Another feature that facilitated engagement was having activities that students with disabilities were interested in and in which they could actively participate. When students found activities that they could do, such as swimming or yoga, they expressed satisfaction in numerous ways. Lastly, students expressed a strong desire to engage in physical activities that provided social experiences and helped them to socially connect with others. These findings support previous studies that reported the need and usefulness of accessible facilities and features in promoting physical activity for individuals with disabilities (Rimmer et al., 2004; Zabriske, Lundberg, & Groff, 2005), and the need for accepting environments including positive attitudes exhibited by staff members (Devine & O’Brien, 2007). It also extends the understanding of the needs of students with disabilities for physical activity to be feasible relative to location, time of day, access to facilities to care for personal needs, and pace of an activity.

The barriers described by participants reflect theoretical and practical implications. Interestingly, some students discussed a sub-culture of inactivity within the context of their lives. Two participants discuss how they were not encouraged to be physically active through their youth. One participant discussed how any form of activity was viewed by people without disabilities as extraordinary. While these views juxtapose

each other, they may be “two sides of the same coin” from a social construction theory framework. Social construction of disability posits that society assigns meaning to disability in predominantly negative ways (Berger & Luckmann, 1967). We associate those meanings to behaviors, objects, and language as they relate to disability and perpetuate these meanings through our social interactions. Historically, the social construction of disability has reflected a negative meaning of disability including stigmatizing and stereotypical perspectives. The barriers described by the participants of this study have been found in previous examinations (Giacobbi, et al, 2008; Lundberg, et al., 2011). They are examples that can be explained by social construction theory in that in physically active contexts, society assumes people with disabilities cannot be actively engaged and if/when they are, it is so extra ordinary that it is heroic (Devine & Wilhite, 2000). If those who design, plan, and operate campus recreation services continue to assume students with disabilities will not be active users of these services, then the social construction of disability will continue to be perpetuated.

The other significant barrier described by participants was the lack of equity. Students discussed feeling like there were few to no opportunities for them to participate in physical activities. They also discussed not being taken into consideration in the activity program planning process, nor did they perceive that they were always welcomed when they did participate. Prior studies have also found that people with disabilities were not readily taken into consideration when physically active options were planned or offered (Groff & Kleiber, 2001; Lundbert et al., 2011). Giacobbi et al. (2008), found that not only does active engagement in physical activity boost the psychological, social, and physical benefits, but it increased the quality of life for people with disabilities. Additionally, from a practical standpoint, student involvement in campus activities not only can lead to academic success but can aid in retaining students in college to graduation (Gardner & Barnes, 2007; Henchy, 2011). Applying the principles of universal design (removing physical and environmental barriers to people with disabilities) could be used to address this reported inequity (Roberts, Park, Brown, & Cook, 2011). In particular, applying the principle of *equitable use* in physical and environmental designs could decrease the barriers described in the recreation facilities. Another principle of universal design that

could be helpful if applied to the findings in this study is the principle of *flexibility in use* (Roberts et al., 2011). By applying this principle, instructors would vary their teaching methods, activities, and expectations that all skill outcomes are exactly the same.

Limitations

While this study extends the literature on active living, quality of life, barriers, and facilitators to participation in leisure time physical activity for young adults with mobility and visual impairments, it is not without limitations. One limitation was the single interview procedure with each participant. Multiple interviews can explore not only the perceptions, but extend knowledge of experiences students with disabilities have when engaging in leisure time physical activity. This procedure can also further delve into the students' perspectives of meaningful and valued aspects of participation to further understand motives, benefits, and equity issues. Another limitation of this study was that it lacked a quantitative comparison. Studies that have examined involvement in campus activities with increased academic success and retention to graduation did not specify if any of the subjects were students with disabilities, thus it is not known how or to what extent the benefits described by participants in the present study might influence their own academic success or retention. An extension of this study could include a comparison of the grades, graduation rates, and certain health indicators of students with disabilities who participate in leisure time physical activity and those who do not. Lastly, this study was limited to the inclusion of research participants with mobility and visual impairments. Further inquiries could also explore the perceptions of students with other disabilities such as hearing impairments or mental health disabilities.

Conclusions

This study explored the perceptions of college students with disabilities about their access to and engagement in leisure time physical activities on their campus. It also sought to understand the meaningful and valued aspects of participation in physically active leisure on their campus. Rich qualitative descriptions of the participants' perspectives on their engagement and attempts of engagement and what was meaningful and valued by them, revealed important themes,

particularly the notion of a right fit. From a theoretical perspective, if the context and activity are a right fit for the student with a disability, they are more likely to engage in physical activities. In addition, if the experience was meaningful and valued, the students reported a higher quality of life and stronger connectedness to others and their campus. Previous studies about the benefits of engagement in campus life such as leisure time engagement in physical activity on retention and academic success have not included students with disabilities (Gardner & Barnes, 2007; Henchy, 2011; Miller, 2011). Given the findings of those studies, it would be beneficial to examine those constructs with students with disabilities.

References

- Ashton-Shaeffer, C., Gibson, H.J., Autry, C. E., & Hanson, C. S., (2001). Meaning of sport to adults with physical disabilities: A disability sport camp experience. *Sociology of Sport Journal*, 18, 95-114.
- Astin, A. W. (1999). Student involvement: A developmental theory for higher education. *Journal of College Student Development*, 40(5), 518-529.
- Blinde, E. M., & Taub, D. E. (1999). Personal empowerment through sport and physical fitness activity: Perspectives from male college students with physical and sensory disabilities. *Journal of Sport Behavior*, 22, 181-202.
- Berger, P. L., & Luckmann, T. (1967). *The social construction of reality: A treatise in the sociology of knowledge*. Garden City, NY: Doubleday.
- Devine, M. A. (2004). From connector to distancer: The role of inclusive leisure contexts in determining social acceptance for people with disabilities. *Journal of Leisure Research*, 36, 137-159.
- Devine, M. A., & Koch, L. (2003). The role of inclusive recreation participation by individuals with disabilities in the rehabilitation counseling process. *Journal of Prevention, Assessment, & Rehabilitation*, 21 (2), 83-89.
- Devine, M. A., & Lashua B. (2002). Constructing social acceptance in inclusive leisure contexts: The role of individuals with disabilities. *Therapeutic Recreation Journal*, 36, 65-83.
- Devine, M. A., & O'Brien, M. B. (2007). The mixed bag of inclusion: Conditions of an inclusive camp environment and perceptions of youth with and without disabilities. *Therapeutic Recreation Journal*, 41, 201-222.

- Devine, M. A., & Piatt, J. (2012). Beyond the right to inclusion: The intersection of social and environmental justice for individuals with disabilities in leisure. In Dustin, D. & K. Schwab (eds.), *Speaking up-Speaking out*. Champaign, IL: Sagamore.
- Devine, M.A., & Wilhite, B. (2000). Social construction of disability: Implications for inclusive leisure services for youth with and without disabilities. *Journal of Park and Recreation Administration*, 18(3), 22-40.
- Elkins, D. J., Forrester, S. A., & Noel-Elkins, A. V. (2011). The contribution of campus recreational sports participation to perceived sense of campus community. *Recreation Sports Journal*, 35, 24-34.
- Gardner, S. K., & Barnes, B. J. (2007). Graduate student involvement: Socialization for the professional role. *Journal of College Student Development*, 48 (4), 1-19.
- Giacobbi, P. R., Stancil, M., Hardin, B., & Bryant, L. (2008). Physical activity and quality of life experienced by highly active individuals with disabilities. *Adapted Physical Activity Quarterly*, 25, 189-207.
- Glaser, B. G. (1978). *Theoretical sensitivity*. San Francisco: University of California, San Francisco.
- Groff, D.G., & Kleiber, D.A. (2001). Exploring the identity formation of youth involved in an adapted sports program. *Therapeutic Recreation Journal*, 35(4), 318-332.
- Guba, E. G., & Lincoln, Y. S. (1985). *Naturalistic inquiry*. Thousand Oaks, CA: Sage.
- Henchy, A. (2011). The influence of campus recreation beyond the gym. *Recreation Sports Journal*, 35, 174-181.
- Kleiber, D.A. (1999). *Leisure experience and human development: A dialectical interpretation*. Basic Books Inc. New York.
- Lindsey, R., & Sessoms, E. (2006). Assessment of a campus recreation program on student recruitment, retention, and frequency of participation across certain demographic variables. *Recreation Sports Journal*, 30, 30-39.
- Lundberg, N. R., Taniguchi, S., McCormick, B., & Tibbs, C. (2011). Identity negotiating: Redefining stigmatized identities through adaptive sports and recreation participation among individuals with a disability. *Journal of Leisure Research*, 43, 205-225.
- Mannell, R. C., & Kleiber, D. A. (1997). *A social psychology of leisure*. State College, PA: Venture.
- Milem, J. F., & Berger, J. B. (1997). A modified model of college student persistence: Exploring the relationship between Astin's theory of involvement and Tinto's theory of student departure. *Journal of College Student Development*, 38(4), 387-400.
- Miller, J. J. (2011). Impact of a university recreation center on social belonging and student retention. *Recreation Sports Journal*, 35, 117-129.
- Miller, K. H., Noland, M., Rayens, M. K., & Staten, R. (2008). Characteristics of users and nonusers of a campus recreation center. *Recreation Sports Journal*, 32, 87-96.
- Rimmer, J. H., & Braddock, D. (2002). Health promotion for people with physical, cognitive and sensory disabilities: An emerging national priority. *American Journal of Health Promotion*, 16, 220-224.
- Rimmer, J. H., Riley, B., Wang, E., Rauworth, A., & Jurkowski, J. (2004). Physical activity participation among persons with disabilities. *American Journal of Preventive Medicine*, 26, 419-425.
- Roberts, K. D., Park, H. J., Brown, S., & Cook, B. (2011). Universal design for instruction in postsecondary education: A systematic review of empirically based articles. *Journal of Postsecondary Education and Disability*, 24, 5-15.
- Samdahl, D. M., & Jekubovich, N. J. (1997). A critique of leisure constraints: Comparative analyses and understandings. *Journal of Leisure Research*, 29, 430-452.
- Silva, C. F., & Howe, P. D. (2012). Difference, adapted physical activity and human development: Potential contribution of capabilities approach. *Adapted Physical Activity Quarterly*, 29, 25-43.
- Smart, J. F. (2001). *Disability, society, and the individual*. Gaithersburg, MD: Aspen.
- Staeger-Wilson, D., & Sampson, D. H. (2012). Infusing JUST Design in campus recreation. *Journal of Postsecondary Education and Disability*, 25, 247-252.
- Strauss, A. L., & Corbin, J. M. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Thousand Oaks, CA: Sage.
- Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition*. Chicago, IL: University of Chicago Press.
- Tollefsen, C. (2010). Disability and social justice. In C. D. Ralston, Ho, J. *Philosophical reflections on disability*. (pp. 211-228). New York: Springer.

- Watson, II, J. C., Ayers, S. F., Zizzi, S., & Naoi, A. (2006). Student recreation centers: a comparison of users and non-users on psychosocial variables. *Recreation Sports Journal*, 30, 9-19.
- Wilhite, B., & Shank, J. (2009). In praise of sport: Promoting sport participation as a mechanism of health among persons with a disability. *Disability and Health Journal*, 2, 116-127.
- Zabriske, R., Lundberg, N., & Groff, D. (2005). Quality of life and identity: The benefits of a community-based therapeutic recreation and adaptive sport program. *Therapeutic Recreation Journal*, 39, 176-191.

About the Author

Mary Ann Devine received her B.S. degree in therapeutic recreation from the University of Northern Colorado and Ph.D. from the University of Georgia. Her experience includes working as a therapeutic recreation coordinator for various park and recreation organizations, primarily facilitating inclusive recreation experiences for individuals with disabilities of all ages. She is currently a professor at Kent State University. Her research interests include theoretical and applied issues related to the inclusion of people with disabilities in community contexts. She can be reached by email at: mdevine@kent.edu

Providing Postsecondary Transition Services to Youth with Disabilities: Results of a Pilot Program

**Lucy Barnard-Brak
Marcelo Schmidt
Tianlan Wei
Texas Tech University**

**Tamara Hodges
Eric L. Robinson
Baylor University**

Abstract

The results of a pilot program to provide transition services for high school seniors with disabilities via one-on-one mentoring services over the course of an academic year were examined. Results indicate significantly improved attitudes toward requesting accommodations over the course of the nine month program. These results suggest positive outcomes associated with the pilot program including increased application and subsequent enrollment to postsecondary education over and above national estimates. Information highlighting aspects of the program are provided including the positive preliminary results of the program. The paper concludes with a section on lessons learned and future adjustments in order to provide some practical program guidance for individuals who anticipate beginning a similar program.

Keywords: Transition services, students with disabilities, postsecondary education

There has been considerable improvement over the past two decades in postsecondary education (PSE) transition services provided to students with disabilities in the United States. Kohler and Field (2003) suggest that these improvements can be attributed to the federal government's concerted effort to improve policies and legislation that support transition services, an increase in federal funds invested in transition services, and the growing body of scholarly research addressing the issue of transition services. A tangible measure of improvement in transition services is the growing number of students with disabilities who are pursuing PSE. For example, the National Longitudinal Transition Study 2 (NLTS-2), which followed a nationally-representative sample of youth with disabilities, found a 17% increase in PSE enrollment between the years 1987 through 2003 (Wagner, Newman, Cameto, & Levine, 2005). While this increase in enrollment is encouraging, according to the same study only approximately one-third (31%) of high school graduates with disabilities enroll in PSE

compared to 40% enrollment for students in the general population (Wagner, Newman, Cameto, & Levine, 2005; Wagner, Cameto, Garza, & Levine, 2005). Thus, while the pursuit of PSE as a result of enhanced transition services for youth with disabilities is improving, it is evident that several challenges remain.

There are multiple challenges commonly faced by students with disabilities as they transition to PSE, including (1) the consequences of a less than ideal secondary preparation (Hitchings, Retish, Horvath, 2005; Horn & Berkold, 1999; Johnson, Stodden, Emanuel, Luecking, & Mack, 2002; Kohler & Field, 2003); (2) differences in services provided by secondary education and PSE (Madaus & Shaw, 2004; Padron, 2006; Sitlington, 2003), and (3) inadequate self-advocacy skills that may allow them to meet the rigors of PSE (Anctil, Ishikawa, & Tao Scott, 2008; Kissel, 2006; Lancaster, Schumaker, & Deshler, 2002).

Further, students with disabilities are often enrolled in secondary educational tracts that are not

comprehensive enough nor possess the academic rigor conducive to PSE (Blackorby & Wagner, 1996; Johnson et al., 2002; Stodden, Conway, & Chang, 2003), which occurs despite the requirements of the Individuals with Disabilities Education Improvement Act (IDEA) 2004. IDEA specifies that youth must be provided with accommodations and services that will “prepare them for further education” (IDEA, 2004, 20 U.S.C. § 1400 d(1)(a)). Hitchings et al. (2005) noted that, of a sample of students with disabilities who had expressed interest in attending PSE, only 5% were enrolled in an academic program rigorous enough to prepare them for the demands of PSE.

Interestingly, those few students with disabilities who actually meet the academic criteria for PSE typically encounter a myriad of difficulties particular to services provided at the postsecondary level. Madaus (2007) suggested that this transition period can be “confusing and overwhelming” (p. 32) for students with disabilities. The incongruence between secondary and postsecondary institutions in terms of services and accommodations provided warrant attention (Johnson, et al., 2002; Stodden, et al., 2003). Stodden, Jones and Chang (2002) outlined two primary differences in services, supports, and accommodations between secondary educational settings and those in postsecondary settings. They indicated that differences exist in terms of (a) the laws and interpretation of the laws that regulate services provided and (b) between the services that each setting is required to provide students with and under what circumstances. For example, IDEA, which regulates secondary education, places the burden on school personnel to identify and provide necessary services whereas ADA (Americans with Disabilities Act) at the PSE level requires students to self-identify and request accommodations and services on their own (Stodden et al., 2001).

Given that ADA requires students with disabilities to self-report and request appropriate services, those who have developed self-advocacy skills can manage this process with greater ease (Brinckerhoff, 1994; Durlak, Rose, & Bursuck, 1994; Getzel & Thoma, 2008; Hitchings et al., 2005; Johnson et al., 2002; DOE, 2007). Self-advocacy as a concept is nested within self-determination theory (Field, 1996; Ward, 1988) and has been reported to be the most crucial skill students with disabilities must develop in order to succeed in PSE (Janiga & Costenbader, 2002). Test, Fowler, Wood, Brewer, and Eddy (2005) recommend that youth develop self-advocacy skills that enable

them to understand who they are, understand and exercise their rights, communicate effectively about their needs, and become leaders and advocates for themselves in the cause for students with disabilities. Another recommendation is that self-advocacy skills be acquired early in life with guidance from parents and school personnel prior to enrollment in PSE (Brinckerhoff, 1994; Hitchings et al., 2005). It has been noted, however, that these skills are not always being taught to youth during secondary education (Brinckerhoff, 1994), with teachers citing time constraints and difficulty in imparting self-advocacy training as reasons for not doing so (Lancaster et al., 2002). Yet, the importance of early development of self-advocacy skills cannot be overstated in light of the relative absence of this type of training offered in PSE. According to Stodden et al. (2001), institutions of higher education are more likely to provide services that advocate for students with disabilities than they are to teach self-advocacy skills or offer self-advocacy training to students.

Accessing PSE may be the product of such self-advocacy on the part of students with disabilities. Anttil et al. (2008) found evidence indicating that students who exercised self-advocacy skills were more likely to persist and successfully meet their academic goals. Given that secondary education often fails to prepare students to self-advocate, it is not surprising that two-thirds of all students with disabilities who could transition into PSE never do (Wagner, Cameto, Garza, & Levine, 2005). Contributing to these low numbers are inadequate transition services, which regularly exclude student input and often deter them from transitioning into PSE (Hitchings, et al., 2001). Students who do transition into PSE must further exercise their advocacy skills in order to request educational accommodations, a process that typically entails registering with an on-campus office along with providing appropriate disability documentation. A number of students with disabilities in PSE, however, fail to request the accommodations or do so only after struggling academically or socially (Barnard-Brak, Lechtenberger, & Lan, 2010). As a result, many students with disabilities in PSE no doubt encounter challenges with persistence and drop out of college.

Failure to access and persist in PSE places individuals with disabilities in a precarious and vulnerable position in society. Often the consequence of not completing PSE burdens individuals with undue economic strain as their potential for securing meaningful

Table 1

Participants by Disability (N=43)

Disability	<i>n</i>	%
Learning disability or specific learning disability	28	65.1
Intellectual disability	2	4.7
Hearing impairment	2	4.7
Emotional disturbance	1	2.3
Visual impairment	1	2.3
Health condition	1	2.3
ADHD	1	2.3
Multiple disabilities	3	7.0
No disclosure	4	9.3

employment is significantly limited (National Council on Disability [NCD], 2003). Thus, individuals with disabilities are more likely to live below the poverty line as compared to their non-disabled counterparts (She & Livermore, 2006). This relationship between disability and socio-economic status prompted the Task Force on Postsecondary Education and Disabilities (2000) to conclude that higher education is the key determinant as to whether an individual with a disability continues to experience material (e.g., financial) hardship.

There appears to be a paucity of studies that assess the impact and value of transition service models implemented towards PSE. This observation is echoed by Cobb and Alwell (2009) who, after a systematic review of literature of transition services, concluded there is a "relative absence of transition models," and that while some have been described in the literature, it is "time to move from descriptions to empirical validation of these models" (p. 79). Thus, the purpose of the current study was to examine the effectiveness of a mentoring program to assist youths with disabilities in transitioning to PSE. To achieve this purpose, two research questions were examined. The first research question examined whether the mentoring intervention

was associated with a statistically significant decrease in negative attitudes towards requesting accommodations among high school students with disabilities across the academic year. The second research question examined whether these differences in attitudes towards requesting accommodations were significantly associated with whether the participant applied to college.

Methodology

Participants

A total of 43 high school students with disabilities participated in this study. Among the participants, approximately 48.8% ($n = 21$) reported being female and 51.2% ($n = 22$) reported being male. In terms of ethnicity, 46.5% ($n = 20$) described themselves as White, followed by 37.2% ($n = 16$) African American, and 20.9% ($n = 9$) Hispanic. The sum of participants from each ethnic group exceeds the sample size because the respondents were permitted to endorse more than one ethnicity. Table 1 provides a summary of the frequency and percentages by types of disabilities reported by participants.

With the informed consent of the students and their parents, students' eligibility for special education services was confirmed with school personnel but not the disability(ies) reported. Disabilities such as visual and hearing impairment are typically regarded as visible disabilities, while other disabilities such as learning disabilities and diabetes are typically regarded as hidden or non-visible disabilities. In the current study, approximately 76.7% ($n = 33$) of the participants reported having hidden disabilities and 7.0% ($n = 3$) reported having visible disabilities. We did not make any evaluation of this attribution of hidden versus visible disability by participants.

Mentoring Intervention

The pilot program included one-on-one mentoring for each of the participants for approximately an hour a week throughout the academic year. Each of these mentors were graduate students in school psychology or social work who received approximately two weeks of training and a structured curriculum of materials from a team of education practitioners before working with students in the schools. In exchange for fulfilling the roles as mentors in the program for the academic year, these graduate students were funded externally with stipends and tuition assistance as graduate assistants. Each mentor was assigned between seven and ten high school students, which would vary according to logistics as the pilot program served four different school districts covering a geographical area of approximately 29 square miles.

Mentors met with student participants approximately once a week for about an hour on a routine basis while observing the school's calendar. Mentors would usually coordinate to meet with multiple students at a school consecutively to reduce time commuting from school to school. Based upon the structured curriculum, mentors would cover a range of topics related to transition to PSE for students with disabilities. Example topics covered included role playing self-advocacy activities (e.g., discussing a request for accommodations with faculty), how to fill out a FAFSA (Free Application for Federal Student Aid) checklist, and discussing services available to individuals with disabilities through the state vocational rehabilitation agency. The curriculum also included structured campus visits, which consisted of tours and meeting with personnel such as staff in disability accommodations offices.

None of the four school districts had a transition spe-

cialist dedicated to serving students with disabilities who were college-bound. For our program, we had a point of contact with a school counselor who would help us identify students and arrange the most appropriate times to pull students out of class. For the school districts we worked with, there was no distinction in PSE transition services between students with and without disabilities. Throughout the academic year, mentors received weekly supervision by two faculty members in the school psychology program. Thus, this mentoring program to help students with disabilities transition into higher education presents a model for providing long-term, individually based services for students with disabilities utilizing graduate students in school psychology, social work, and other allied fields.

Measures

To measure students' pre- and post-intervention attitudes toward requesting accommodations, the Attitudes Toward Requesting Accommodations scale ([ATRA]; Barnard-Brak, Sulak, Tate, & Lechtenberger, 2010) was utilized. The 32-item scale consists of four subscales measuring student attitudes toward requesting accommodations: Academic Integrity, Disability Disclosure, Disability Acceptance, and Accommodations Process. Respondents were asked to rate each item on a 5-point Likert scale with values ranging from 1 (strongly agree) to 5 (strongly disagree). Total scores were calculated by summing individual item scores without recoding any items. As such, higher scores on this scale indicate more negative attitudes toward requesting accommodations, while lower scores indicate more positive attitudes. Barnard-Brak et al. (2010) reported that the internal consistency of scores for the data was $\alpha = .912$. Acceptable levels of internal consistencies for scores for the data on the four subscales were also revealed: Academic Integrity ($\alpha = .906$), Disability Disclosure ($\alpha = .875$), Disability Acceptance ($\alpha = .903$), and Accommodations Process ($\alpha = .943$). As the mentoring intervention spanned the academic year, the pre-test was administered in August and the post-test was administered in the following May.

Analysis

All analyses were performed in SPSS (v. 16.0). Missing data were limited as approximately 9% ($n = 4$) of the cases had incomplete data on some variables. Missing data were handled using a pairwise method of deletion. To answer the first research question, a

paired or dependent samples *t*-test was performed given that data were repeated measures. For the second research question, we performed an independent samples *t*-test to examine the difference scores in attitudes toward requesting accommodations from two time points according to whether the participant subsequently applied to college. In performing our independent samples *t*-test, the assumption of homogeneity of variance was evaluated by the Levene's *F* test for the equality of variances. Results of the Levene's *F* test indicated that the assumption of homogeneity of variances may be considered met, Levene's $F(1, 41) = .116, p = .735$. Cohen's *d* was calculated as the measure of effect size. Values for Cohen's *d* of .20, .50, and .80 and larger may be considered as small, medium, and large respectively (Cohen, 1988).

Results

In answering the first research question, results indicate that negative attitudes towards requesting accommodations significantly decreased across the academic year in which the intervention occurred, $t(42) = -6.03, p < .001, d = -.74$. This value of Cohen's *d* may be considered as indicating a close to large and substantial effect that may be attributed in at least part to the mentoring intervention. As of first time point in data collection in August of the academic year, participant mean ATRA scores were 96.30 ($SD = 9.33$) and decreased to a mean score of 89.23 ($SD = 9.78$) by the second time point at the end of the academic year in May. Thus, the mentoring intervention appeared to be associated with an increase in positive attitudes toward requesting accommodations among the participants.

For the second research question, we examined for differences in attitudes toward requesting accommodations according to whether the participant applied to college. Approximately 81% ($n = 35$) of the sample applied to at least three institutions of PSE while 19% ($n = 8$) did not apply to any institution of PSE. Approximately half of the students with and without disabilities in the study's school districts attempted PSE prior to this pilot study. We should also note that participation in the mentoring program required the completion of at least three college applications; otherwise, the student chose not to continue participating in the program. Thus, students either completed three or zero college applications.

Postsecondary institutions to which participants applied ranged from two-year technical and community colleges to four-year institutions of higher education.

Results revealed no statistically significant differences in ATRA scores between those participants who applied to college and those who did not, $t(41) = 1.10, ns$. A post hoc statistical power analysis was conducted to examine if there was a sufficient sample size distribution between the two groups. Results indicate a lack of an acceptable level of statistical power ($1 - \beta = .27$) to reveal statistically significant differences. Subsequently, 100% ($n = 35$) of the sample that applied to PSE were accepted to at least one institution and chose to attend. Approximately 94% ($n = 33$) of these institutions were two-year community colleges or vocational schools (e.g., The Culinary Institute of America) followed by the four-year degree-granting institutions of higher education with approximately 6% ($n = 2$). This outcome coincides with national findings indicating that students with disabilities were five times more likely to attend a two-year versus a four-year institution (Wagner, Newman, Cameto, & Levine, 2005). The majority of the institutions were located in the state where the mentoring intervention occurred, many of which were close to home (e.g., within 50 to 100 miles).

Discussion

From the results of the current study, it appears that the mentoring intervention was associated with a substantial and significant decrease in negative attitudes toward requesting accommodations. In producing more positive attitudes toward requesting accommodations among participants, previous research has indicated that these attitudes are associated with students subsequently requesting accommodations in higher education and higher grade point averages in higher education (Barnard-Brak, Davis, Tate, & Sulak, 2009). Results did not, however, reveal that this decrease in negative attitudes toward requesting accommodations was associated with the participant applying to college. Yet, post hoc analyses also revealed a lack of statistical power given that only eight out of the 43 participants (e.g., 19% of the sample) did not apply to an institution of PSE. This lack of sufficient sample size distribution may make the pilot program a victim of its own success in not producing enough participants that did not apply to college for the purposes of statistical analysis. Results of the current study indicate that mentoring intervention programs, such as in this pilot program, are associated with positive outcomes for high school students with disabilities.

Lessons Learned and Future Adjustments

In addition to making a noticeable impact on students with disabilities with respect to their attitudes toward requesting accommodations, the pilot program provided opportunities for lessons learned and subsequent future adjustments that might assist others when pursuing a similar program model. In pursuing this program, the local university partnered with local independent school districts to provide access to students and also a location in which to meet with students on a regular basis. Without the support from schools, this pilot program would not have been successful. Thus, the value of these partnerships with schools was pivotal in the success. Future first year programs should engage schools, at all levels of personnel, as early as possible in implementing such a program. Support from district-level administrators was critical to this type of program by scheduling parent night programs, working with local Educational Service Centers, providing access to student records more expediently than local staff, as well as organizing bus transportation when needed to make college campus tours, and scheduling roundtable discussions with all necessary adults who were invested in this program. Campus personnel, while helpful, did not necessarily have the resources or knowledge on how to enact program-related activities described above. We should note that bus transportation for college campus tours was not part of the funded mentoring program and the program was fortunate enough to have the cooperation of schools. A future adjustment will be to anticipate involving the parents throughout the year in order to help them become an integral part of their student's transition into PSE. In addition, the future plan is to collaborate with the educational service centers to strengthen and expand the efforts of this project.

Thus, the logistics of executing programs such as this were clearly the domain of school district-level administrators as there was a noticeable degree of integration between district-level and school-level leadership to influence the logistics across the majority of the school districts. By utilizing district-level administrators, it is intended that all parties involved will combine resources to strengthen necessary services. Being an outside agency (i.e., a university) bringing this program into selected schools required the efforts of many school personnel from different levels of the organization.

Another lesson learned was to accommodate the school personnel's request for the type of academic

subject a student can be removed from in order to meet with a mentor. The initial plan was to request a one-hour per week meeting. For logistical reasons, attempts were made to coordinate the university mentor being on the high school campus for blocks of time since the school locations caused significant driving distances for some mentors. This coordination would mean that the mentor would attempt to schedule several high school students over consecutive hour blocks as much as possible. This scheduling of students was met with initial resistance by some school officials because of the subject areas that certain students would miss. A compromise was usually agreed upon, typically through consultation between the mentor and the principal, to not take students out of class when subjects such as math or English were taught but rather for elective class periods such as theatre arts. Through creative scheduling and occasionally having no more than a one-hour block of time between mentor-student meetings, this potentially critical problem was resolved to the satisfaction of the school personnel.

An additional lesson learned was addressing the timing of establishing contact with the local school districts. The funding for this program was finalized about the time local public high schools began their academic year. Therefore, the first month of the program focused on hiring graduate students and establishing contacts in the public schools during a time when school personnel were preoccupied with coordinating and organizing the opening of their school. A future adjustment for the second year of the program is to establish contacts with schools in the spring in preparation for the fall semester.

A third lesson learned that might benefit future programs focuses on establishing a larger pool of initial students. The goal of year one of this program was to enroll approximately 50 high school students with disabilities and we ended up enrolling 43, with only 35 completing the program. Further, several of the initial contacts with prospective participants revealed that some were the typical age of seniors (i.e., 17-18 years old) but were juniors or sophomores academically in terms of credits earned. Since the project is geared as a one-year mentoring program, the referral of these students introduced several challenges ranging from adapting the curriculum to collecting pre- and post-program data because one of the most meaningful data points is whether students applied to college. A future adjustment will be to, more clearly and early

on, communicate the type of student needed for the program (i.e., student with a disability who is on track to graduate at the end of the academic year), and to have a “wait list” of students in the fall semester in case some students are unable or unwilling to participate in the program. It may be necessary to inform students about the project during the spring of their junior year in high school in order to have the group ready to begin as soon as they start their senior year.

A final lesson learned was the difficulty in maintaining contact with the first cohort of project participants once they graduated from high school. Then, due to the nature of the graduate programs at the local university, it is difficult to continue with the same mentors. An artifact of this situation is attempting to get high school graduates to respond to contacts from another individual other than their year-long mentor. In addition, it was discovered that email, postal addresses, and telephone numbers were often inaccurate. Future adjustments to this situation include preparing the high school student to anticipate having a different person contact them during the summer after graduation. Additionally, we recommend setting up contacts via Facebook and Twitter accounts prior to graduation and guiding participants to use the accounts prior to graduation so they will anticipate and have experience communicating with program staff. Subsequent cohorts should be easier and more effectively communicated with after graduation using these methods.

Limitations

Several limitations emerged as part of conducting the current program. First, evaluation of the program is confounded by the self-selection bias of student-participants. All selection and participation in the program was voluntary, thus some students (and/or their parents) who were already inclined to higher education would have volunteered to participate in this program. Thus, improving attitudes toward requesting accommodations and having students apply to college might not be as difficult given the self-selected nature of the sample versus a randomly selected sample of college-bound high school students with disabilities. The influence of the self-selected nature of participation on results is an issue that confronts all correlational research with human subjects as initial and continued participation of human subjects. Second, subsequent and more sophisticated analyses were precluded given the small

number of students-participants not applying to college ($n = 8$). Again, this limitation may be in part due to the self-selected nature of the sample. Additionally, the act of applying to college signifies an important choice in the life of a young person regardless of disability. A limitation of the current study is that the influence of the variables that interact to produce this choice to pursue PSE cannot be underestimated but often are in the current study and relevant literature.

Finally, given the sensitive nature of socioeconomic status (e.g., as measured by household income), we chose not to collect this information from participants, which would have provided further information to inform conclusions. Information about SES and other relevant follow-up data such as their college GPAs and their progress through freshmen courses would have been useful in determining the long-term efficacy of the program. Thus, results are limited to describing the efficacy of the program as to whether students' attitudes toward requesting accommodations improved over the course of an academic year and whether students were accepted into a postsecondary institution for study.

Conclusion

The results of the pilot program, though preliminary, provide positive support for the implementation of similar programs that provide one-on-one mentoring over the course of an academic year (e.g., 9 months) that serve students with disabilities and train future generations of school psychologists, social workers, and others in allied fields. In conclusion, the results of this pilot program are particularly powerful given that only one-third (31%) of all students with disabilities who are capable of pursuing PSE do so (Wagner, Newman, Cameto, & Levine, 2005). From our sample of participants, approximately 81% pursued PSE, which may be considered a substantial gain over 31% even when considering the issue of self-selection bias of those who participated in the program.

References

- Americans with Disabilities Act of 1990, Pub. L. No. 101-336, § 2, 104 Stat. 328 (1991).
- Anctil, T. M., Ishikawa, M. E., & Tao Scott, A. (2008). Academic identity development through self-determination: Successful college students with learning disabilities. *Career Development for Exceptional Individuals*, 31, 164-174.
- Barnard-Brak, L., Davis, T. N., Tate, A., & Sulak, T. (2009). Attitudes toward accommodations as a predictor of college students requesting accommodations. *Journal of Vocational Rehabilitation*, 31(3), 189-198.
- Barnard-Brak, L., Lechtenberger, D., & Lan, W.Y. (2010). Accommodation strategies of college students with disabilities. *The Qualitative Report*, 15(2), 411-429.
- Barnard-Brak, L., Sulak, T. N., Tate, A., & Lechtenberger, D. A. (2010). Measuring attitudes toward requesting accommodations: A national multi-institutional study. *Assessment for Effective Intervention*, 35(3).
- Blackorby, J., & Wagner, M. (1996). Longitudinal postschool outcomes of youth with disabilities: Findings from the National Longitudinal Transition Study. *Exceptional Children*, 62(5), 399-414.
- Brinckerhoff, L. C. (1994). Developing effective self-advocacy skills in college-bound students with learning disabilities. *Intervention In School And Clinic*, 29(4), 229-37.
- Cobb, B., & Alwell, M. (2009). Transition planning/ coordinating interventions for youth with disabilities: A systematic review. *Career Development for Exceptional Individuals*, 32(2), 70-81.
- Cohen J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.) Hillsdale NJ: Lawrence Erlbaum.
- Durlak, C. M., Rose, E., & Bursuck, W. D. (1994). Preparing high school students with learning disabilities for the transition to postsecondary education: Teaching the skills of self-determination. *Journal of Learning Disabilities*, 27, 51-59.
- Field, S. (1996). Self-determination instructional strategies for youth with learning disabilities. *Journal of Learning Disabilities*, 29, 40-52.
- Getzel, E. E., & Thoma, C. A. (2008). Experiences of college students with disabilities and the importance of self-determination in higher education settings. *Career Development for Exceptional Individuals*, 31(2), 77-84.
- Hitchings W. E., Luzzo, D. A., Ristow, R., Horvath, M., Retish, P., & Tanners, A. (2001). The career development needs of college students with learning disabilities: In their own words. *Learning Disabilities Research and Practice*, 16(1), 8-17.
- Hitchings, W. E., Retish, P., & Horvath, M. (2005). Academic preparation of adolescents with disabilities for postsecondary education. *Career Development for Exceptional Individuals*, 28(1), 26-35.
- Horn, L., & Berktoed, J. (1999). Students with disabilities in postsecondary education: A profile of preparation, participation, and outcomes. *National Center for Education Statistics*, 187. Washington, DC: U.S. Department of Education.
- Individuals With Disabilities Education Act, 20 U.S.C. § 1400 (2004).
- Janiga, S. J., & Costenbader, V. (2002). The transition from high school to postsecondary education for students with learning disabilities: A survey of college services coordinators. *Journal of learning Disabilities*, 35(5), 463-470.
- Johnson, D. R., Stodden, R. A., Emanuel, E. J., Luecking, R., & Mack, M. (2002). Current challenges facing secondary education and transition services: What research tells us. *Council for Exceptional Children*, 68(4), 519-531.
- Kissel, H. L. (2006). *Self-advocacy programs for college student with disabilities: A framework for assessment*. Paper presented at the 2006 annual meeting of the American Educational Research Association. San Francisco, CA.
- Kohler, P. D., & Field, S. (2003). Transition-focused education: Foundation for the future. *The Journal of Special Education*, 37(3), 174-183.
- Lancaster, P. E., Schumaker, J. B., & Deshler, D. D. (2002). The development and validation of an interactive hypermedia program for teaching a self advocacy strategy to students with disabilities. *Learning Disability Quarterly*, 25, 277-302.
- Madaus, J. W., & Shaw, S. F. (2004). Section 504: differences in the regulations for secondary and postsecondary education. *Intervention in School and Clinic*, 40(2), 81-87.
- Madaus, J. W. (2007). Navigating the college transition maze: A guide for students with learning disabilities. *Teaching Exceptional Children*, 37(3), 32-37. National Council on Disability (2003). People with disabilities and postsecondary education (Position paper). Retrieved from <http://www.ncd.gov/publications/2003/Sept152003>.

- National Council on Disability. (2003). *National Disability Policy: A progress report* December 2001 to December 2002. Retrieved from: www.ncd.gov.
- Padron, J. M. (2006). Experience with post-secondary education for individuals with severe mental illness. *Psychiatric Rehabilitation Journal*, 30(2), 147-149.
- Postsecondary Education and Disabilities. (2000). *Report of the Task Force on Postsecondary Education and Disabilities*. Retrieved from <http://www.suny.edu/disabilities/TaskForce/pdf/Fullreport.pdf>
- She, P., & Livermore, G. A. (2006) *Material hardship, poverty, and disability among working-age adults* (Research Brief). Ithaca, NY: Rehabilitation Research and Training Center on Employment Policy for Persons with Disabilities, Cornell University.
- Sitlington, P. L. (2003). Postsecondary education: The other transition. *Exceptionality*, 11(2), 103-113.
- Stodden, R. A., Whelley, T., Chang, C., & Harding, T. (2001). Current status of education support provision to students with disabilities in postsecondary education. *Journal of Vocational Rehabilitation*, 16, 189-198.
- Stodden, R., Jones, M. A., & Chang, K. B. T. (2002). *Services, supports and accommodations for individuals with disabilities: An analysis across secondary education, postsecondary education and employment*. Unpublished manuscript, Honolulu.
- Stodden, R. A., Conway, M. A., Chang, K. B. T. (2003) Findings from the study of transition, technology and postsecondary supports for you with disabilities: Implications for secondary school educators. *Journal of Special Education*, 18(4), 29-44.
- Test, D. W., Fowler, C. H., Wood, W. M., Brewer, D. M., & Eddy, S. (2005). A Conceptual Framework of Self-Advocacy for Students with Disabilities. *Remedial And Special Education*, 26(1), 43-54.
- U. S. Department of Education (2007). *Transitioning student with disabilities to higher education: Attitude and self-advocacy*. Retrieved from http://www.ldonline.org/article/Transitioning_Students_with_Disabilities_to_Higher_Education%3A_Attitude_and_Self-Advocacy?theme=print
- Wagner, M., Newman, L., Cameto, R., & Levine, P. (2005). *Changes over time in the early postschool outcomes of youth with disabilities. A report of findings from the National Longitudinal Transition Study (NLTS) and the National Longitudinal Transition Study-2 (NLTS2)*. Menlo Park, CA: SRI International.
- Wagner, M., Newman, L., Cameto, R., Garza, N., & Levine, P. (2005). *After high school: A first look at the postschool experiences of youth with disabilities. A report from the National Longitudinal Transition Study-2 (NLTS2)*. Menlo Park, CA: SRI International.
- Ward, M.J. (1988). The many facets of self-determination. *Transition Summary*, 5, 2-3.

About the Authors

Dr. Lucy Barnard-Brak received her M.Ed. and Ph.D. in Educational Psychology from Texas Tech University. She is currently the Director of Core Statistical Services for the Burkhart Center for Autism Education and Research at Texas Tech University as well as faculty in the department of Educational Psychology and Leadership. She can be reached via e-mail at: lucy.barnard-brak@ttu.edu

Dr. Marcelo Schmidt received his M.Ed in Kinesiology from the University of Texas – Pan American and Ph.D. in Educational Psychology from Texas Tech University. He is currently working for the Ethics Center at Texas Tech University. His research interests include physical activity of school-aged children, special education, and ethics in education. He can be reached by email at marcelo.schmidt@ttu.edu.

Ms. Tianlan Wei received her LLB degree in Law from Fudan University, China and M.Ed. in Educational Psychology from Texas Tech University. Her experience includes working as a graduate research assistant for College of Education, Texas Tech University. She is currently a graduate part-time instructor of College of Education, Texas Tech University. Her research interests include gender differences in learning and performance, particularly achievement motivation. She can be reached by email at: tianlan.wei@ttu.edu

Dr. Tamara Hodges received her BA degree in psychology from Oral Roberts University and Ed.D. from Baylor University. Her experience includes working as a school psychologist for schools in Central Texas, maintaining a private practice as a psychologist, and serving as a consultant for The Center for Learning and Development in Waco, Texas. She is currently a senior lecturer in the Department of Educational Psy-

chology. Her research interests include eating disorders in children and adolescents, and behavioral/emotional interventions within schools. She can be reached by email at: tamara_hodges@baylor.edu.

Eric Robinson received his BS degree in psychology from Appalachian State University and Ph.D. in school psychology from the University of Kansas. His experience includes working as a school psychologist in Columbia, SC, serving as a behavior management consultant in Topeka, KS, and completing an internship at Girls and Boys Town, NE. He is currently an associate professor in the Department of Educational Psychology at Baylor University. His research interests range from barriers to successful collaboration, to social character in student-athletes. He can be reached by email at: Eric_Robinson@baylor.edu

Authors' Note

We express our gratitude to Greater Texas Foundation for providing financial support for this pilot transition services program. The opinions expressed in this report are those of the author(s) and do not necessarily reflect the view of Greater Texas Foundation.

DSS and Accommodations in Higher Education: Perceptions of Students with Psychological Disabilities

Kathleen F. Stein
Towson University

Abstract

The number of individuals with psychological disabilities attending colleges and universities has increased steadily over the last decade. However, students with psychological disabilities are less likely to complete their college programs than their non-disabled peers and peers with other types of disabilities. This qualitative study explored how college students with psychological disabilities utilize assistance provided by Disability Support Services (DSS), including accommodations, in order to reach their postsecondary goals and examined how these students perceived and described the impact of these services. The researcher conducted in-depth interviews with 16 participants and utilized grounded theory research methods to collect and analyze data. Various themes emerged from the study, including benefits and challenges of using accommodations, the role of DSS on participants' academic experiences, and issues regarding disclosure and stigma.

Keywords: Postsecondary education, postsecondary transition, psychological disabilities, accommodations, higher education

Over the last decade, the number of postsecondary students with psychological disabilities (PD)¹ has steadily increased (Cleary, Walter, & Jackson, 2011; Collins & Mowbray, 2008; Gallagher, 2009). Exact percentages of individuals with PD attending postsecondary institutions are not known (Belch, 2011; Cleary et al., 2011). However, there is much evidence indicating the growing number college students with PD (Belch, 2011; Cleary et al., 2011; Collins & Mowbray, 2008; Newman, Wagner, Cameto, Knokey, & Shaver, 2010; Sharpe, Bruininks, Blacklock, Benson, & Johnson, 2004). Furthermore, the prevalence rate of students with psychological disabilities (SWPD) attending institutes of higher education is beginning

to surpass those of learning disability and attention deficit disorder combined (Kiuahara & Heufner, 2008; Sharpe et al., 2004). Anecdotal evidence also suggests an increase in the number of SWPD seeking and receiving services from university disability service support (DSS) providers in higher education (Preece, Beecher, Martinelli, & Roberts, 2005). Moreover, Gallagher (2004) found 90.6% of college counseling directors are concerned with the increasing prevalence of college students with serious psychological disorders.

Attending college and working towards academic goals is challenging for most students, with or without a disability. In addition to the typical demands of increased academic rigor, new social situations, and living away from home for the first time, attending a postsecondary institution involves further challenges for individuals with psychological disabilities. These include monitoring and managing symptoms of their disability in new and unfamiliar situations, both academic and social; determining to whom they should disclose their disability; deciding if they are going to seek assistance, and if so, what types of assistance; and

¹ For the purposes of this study, the term "psychological disabilities" refers to "a health condition characterized by alteration in thinking, mood, or behavior, or a combination of all three linked to distress and/or impaired functioning in a person" (Mental Health: A Report of the Surgeon General, 1999). The term "psychological disabilities" will be utilized throughout the study, unless another expression appears within a quoted text or is used within a specific context or framework.

figuring out how to obtain these supports. Furthermore, students who receive services from a therapist or psychiatrist may not have access to the same providers if they have relocated to attend school. They also have less immediate access to other support systems, such as family members and friends. Finally, they must contend with stigma and misinformation regarding mental illness, perhaps the most difficult and pervasive challenge (Blacklock, Benson, & Johnson, 2003; Stein, 2012).

Although appropriate supports and treatment can help assist SWPD achieve their postsecondary educational goals (Collins & Mowbray, 2005), this population poses new challenges to administrators and faculty who are not familiar with their needs (Belch, 2011). Psychological disabilities are the least understood and least academically supported disability at institutes of higher education (Belch, 2011; Megivern, Pellerito, & Mowbray, 2003). Not surprisingly, SWPD are often unsuccessful in their academic pursuits (Unger & Pardee, 2002), and these students have consistently completed their programs of study at a lower rate than their non-disabled peers (Best, Still, & Cameron, 2008; Newman et al., 2010). According to Salzer (2012), 86% of students with psychological disabilities withdraw from their postsecondary programs compared to 45% of the general population. Despite the increase of students with psychological disabilities attending postsecondary institutions, they are enrolling at a lower rate than peers with other disabilities, with 34% enrollment for students with psychological disabilities versus 78% enrollment of individuals with visual impairments, 72% of individuals with hearing impairments, 58% of individuals with autism, and 47% of individuals with learning disabilities (Newman et al., 2010).

Disability support service providers report they are “often challenged in meeting the needs of students with psychiatric disabilities” (Sharpe et al., 2004, p.1) due to the complex problems individuals with psychological disabilities face, such as academic failure, withdrawal, and social isolation (Blacklock et al., 2003). In order to respond to the needs of SWPD, postsecondary institutions offer a variety of services, such as university based counseling, outpatient therapy, medication, and academic accommodations. The intent of academic accommodations and DSS is to address the functional limitations (e.g., difficulty managing time and deadlines, extreme reactions to negative feedback, difficulty with concentration) a student is

experiencing, thereby reducing the effects of an individual’s disabling impairment (Shaw & Dukes, 2005). Because services are provided based on functional limitations, the accommodations for SWPD are often similar or identical to supports for students with other disabilities, such as extended time and separate rooms for testing, note-taking, tape recording of lectures, and flexibility regarding attendance (Sharpe et al., 2004). Furthermore, specific and appropriate accommodations are not as evident for individuals with psychiatric disabilities (Blacklock, et al., 2003). According to Hamblet (2009), providing supports and accommodations to this population can be “tricky” because symptoms vary among individuals and “affect students differently at different times” (p. 6).

Currently, there is limited research to guide disability service providers in best assisting SWPD (Salzer, 2012; Sharpe et al., 2004). Salzer, Wick, and Rogers (2008) suggest “little is known about familiarity with and use of accommodations among students with mental illnesses...nothing is known about which accommodations are most used, which are perceived to be most helpful, and the barriers that students face in obtaining accommodations” (p. 371). In addition, few research studies have explored the perspectives and experiences of individuals with disabilities (Carter, Trainor, Ditchman, & Owens, 2011). It is important to understand the perspectives of individuals with psychological disabilities engaged in postsecondary activities, as supports and services must be based on the concerns and experiences of this population (Kurth & Mellard, 2006; Stein, 2012). The purpose of this study was two-fold: (1) to explore how college students with psychological disabilities utilize assistance provided by DSS, including accommodations, in order to reach their postsecondary educational goals; and (2) to explore how college students with psychological disabilities perceive and describe the impact of these services.

Methods

The researcher utilized grounded theory research methods and followed systematic methods of recruiting participants, data collection and data analysis, as delineated by Charmaz (2006). Grounded theory methods “consist of systematic, yet flexible guidelines for collecting and analyzing data to construct theories grounded in the data themselves” (Charmaz, 2006, p. 2). A study using grounded theory examines a process

or action that occurs or develops over time, with the goal of developing a theory of the identified process (Creswell, 2013). According to Creswell (2013), a theory is “an explanation of something or an understanding that the researcher develops” (p. 85). He further notes the goal of grounded theory methods is not to develop a “grand” theory, but a “substantive” level theory (p. 290). That is, a “low-level theory applicable to immediate situations” (p. 290) emerging from the examination of a phenomenon situated in a specific context (Creswell, 2013; Strauss & Corbin, 1990). The researcher chose to utilize grounded theory methods because she is interested in the process of college students with psychological disabilities seeking and utilizing accommodations and other assistance provided by DSS to assist them in their postsecondary academic achievement.

Participants

The researcher used purposeful sampling procedures for this study. Specifically, participants were selected based on certain criteria, rather than convenience sampling methods, in which the researcher recruits participants based on availability or willingness to participate (Sandelowski, 1995). These specific criteria included the following: participants were registered with the DSS office at their university and were identified as having a psychological disability as either their primary or secondary disability; they were receiving accommodations through DSS, or other supports provided by DSS at the time of the study; and, they were currently enrolled in full time course work at their university, maintaining a 2.5 GPA or higher. This GPA was chosen as one of the criteria as it is a minimum requirement for many academic programs at this university. All participants were enrolled at a regional public university in the Mid-Atlantic area of the United States, which serves approximately 21,000 students.

The researcher worked with the university’s DSS office to recruit participants. Specifically, the researcher developed a flyer describing the study, its purpose, what was involved in the study, and the researcher’s contact information, which was then distributed to students registered with DSS and identified as having a psychological disability, as either a primary or secondary disability, by DSS staff. Interested students contacted the researcher, who explained the study in further detail, and answered questions from the potential participants. This initial phone conversation also served as a screening to confirm participant qualifications. Eighteen of

the 22 students who contacted the researcher met the criteria. The researcher explained the study in further detail, answered participants’ questions, and began to establish rapport during the phone conversation; appointments were scheduled during the phone screening. Sixteen of the 18 students attended the scheduled appointment. Two decided not to participate and contacted the researcher to cancel their interview. Participants were undergraduate students, including one freshman, two sophomores, seven juniors, and six seniors. One student was earning a second bachelor’s degree. Ages ranged from 19 to 34, with a mean age of 24.25. The majority ($n=13$) of participants were female; 14 were Caucasian, and two African-American. A variety of majors were represented; three students were double majors and two were undecided. Of the 16 participants, four had IEPs in elementary, middle, or high school, and three additional participants received accommodations through a Section 504 plan. Four students attended small private schools because they needed “extra help,” and received accommodations without an IEP or Section 504 plan. Psychological disabilities included panic disorder, anxiety, bipolar 1 and 2, non-specified mood disorder, major depressive disorder, obsessive compulsive disorder (OCD), agoraphobia, and post-traumatic stress disorder (PTSD). Several participants identified themselves as having multiple diagnoses, including non-psychological disabilities such as dyslexia, processing disorders, and ADHD. Anxiety and mood disorders were the most common disabilities represented. Demographic information is presented in Table 1.

Data Collection

Intensive interviews were conducted with each participant. This method of collection was chosen because intensive interviewing allows for an in-depth exploration of a particular topic or experience and thus is a useful method for interpretive inquiry (Charmaz, 2006). The researcher used an interview protocol (see Table 2); however, questions sometimes varied depending on the responses of the participant. Flexibility is important to allow for answers to be fully explored and to address topics in an order that is comfortable to the participant (Legard, Keegan, & Ward, 2003). The interviews ranged from 45 to 125 minutes, with the majority of interviews lasting between an hour and an hour and a half. Follow-up interviews, which allowed for member checking and theme verification,

Table 1

Description of Participants

<u>Domain</u>	<u>Frequency</u>	<u>Percentage of Total</u>
Gender		
Male	3	18.75
Female	13	81.25
Race/Ethnicity		
African American	2	12.5
Caucasian	14	87.5
Age		
19	1	6.25
20	2	12.5
21	3	18.75
22	2	12.5
24	1	6.25
25	1	6.25
26	1	6.25
27	1	6.25
28	1	6.25
29	1	6.25
30	1	6.25
34	1	6.25
College Year		
Freshman	1	6.25
Sophomore	2	12.5
Junior	7	43.75
Senior	6	37.5
Previous Services		
504	3	12.5
IEP	4	25
Private School Accommodations	4	25
Major Course of Study		
Education	3	18.75
Business	1	6.25
Journalism	1	6.25
Sports Management	1	6.25
Graphic Design	1	6.25
English	1	6.25

(Table 1, continued)

Biology	1	6.25
Family Studies	1	6.25
Religious Studies	1	6.25
Undecided	2	12.5
Dual Majors*	3	18.75
<i>Diagnosis (some participants have dual or multiple diagnoses)</i>		
Depression	7	43.75
Anxiety	7	43.75
Bipolar	3	18.75
Mood Disorder, NOS	2	12.5
Obsessive Compulsive Disorder	2	12.5
Attention Deficit Hyperactivity Disorder	2	12.5
Panic Disorder	1	6.25
Post-Traumatic Stress Disorder	1	6.25
Agoraphobia	1	6.25
Dyslexia	1	6.25

* Dual majors include Psychology and Animal Behavior, Psychology and Deaf Studies, and Music and English.

ranged from 10 to 35 minutes, and took place no later than two weeks after the initial interview. The duration for interviews varied depending on the participants' responses. Some of the variation may have been due to the range of participants' experiences. For example, the freshman and sophomores, as well as students who had recently registered with DSS, had less experience to draw from as compared to individuals who have received accommodations for several years. Face-to-face follow up interviews were conducted with seven participants and four interviews were conducted over the phone.

Consistent with grounded theory methods, the researcher collected data until saturation was reached (Strauss & Corbin, 1998). Theoretical saturation occurs when no new or relevant data seem to emerge regarding a category; the category is well developed in terms of its properties and dimensions demonstrating variation. Thus, the relationships among categories are well established and validated (Strauss & Corbin, 1998, p. 212). The researcher utilized a zigzag approach, going back and forth between data collection and analysis, until categories emerged and reached

saturation (Creswell, 2013). It was determined saturation was reached at the fourteenth interview. The researcher confirmed this determination several times throughout the research process by revisiting the data continuously and considering whether data suggested new properties (Charmaz, 2006).

Participants were given a choice to meet in the DSS office, the researcher's office, or an alternate location where they felt comfortable. Ten met with the researcher in the DSS office, and six chose to meet in the researcher's office. During the phone screening and before the face-to-face interview began, the researcher worked towards establishing rapport with participants by engaging in neutral conversation. She also described her educational background and why she was interested in this particular topic. Although the researcher was not an instructor of any of the participants, nor did she know them before the interviews, some participants may have been nervous or anxious to provide "right" answers because the researcher was a professor at the university. For example, a couple of participants would ask, "Is that what you meant?"

Table 2

*Interview Questions***Interviewee Background**

- How long have you been a student at this institution?
- What is your major?
- What are your career plans?
- When did you graduate high school?
- Did you attend a community college before attending this institution?
- When were you diagnosed with a psychological disability?
- Did you receive accommodations in elementary, middle or high school? If so, describe.

Accommodations

- How long have you received accommodations from DSS?
- How did you learn about the services DSS offers?
- What accommodations do you currently receive? Describe how they help you.
- What accommodations have you received in the past? Describe how they helped you.
- Why aren't you receiving those accommodations now?
- Describe the impact of DSS on your experience at this institution.
- What accommodations would you like DSS to offer? Explain.
- Thinking about this topic, is there anything you would like to add?

Disclosure and Asking for Assistance

- Do you ever want assistance but do not ask? Why? What factors do you consider?
- What is difficult about asking for or receiving assistance?
- Thinking about this topic, is there anything you would like to add?

after responding to a question. In order to address these concerns, the researcher stated that she was not looking for a particular response but was interested in their experiences. She stressed there were no right and wrong answers and their responses would not be connected directly to them. The researcher noted most participants appeared very eager to share their experiences and many expressed gratitude that they were given the opportunity to talk about the issues addressed in the interview.

As previously stated, the researcher conducted follow up interviews with 11 participants, seven in person and four on the phone. During these interviews, the researcher conducted the following steps:

1. The researcher shared selected segments of the participant's interview transcript representative of categories and themes that emerged from the data (if they preferred, the participants were given a hard copy of the transcript excerpts) and asked the following questions for each segment:
 - a. When I asked about (question), you mentioned (read transcript). Does this sound like what you meant to say?
 - b. Is there a way that I should modify the statement to reflect a more accurate portrayal of your experiences?
 - c. Do you agree or disagree with this segment? Please explain.
2. After each segment was reviewed, the researcher asked participants if there were any other questions, or if there was anything they forgot to mention during the initial interview.

The follow up interviews allowed participants to add to their responses. No participants stated they disagreed with the transcripts presented, and the majority confirmed their responses with a simple affirmation or a brief explanation. Three participants expanded on their responses in more detail. However, no new themes or codes emerged from the follow up interviews, thus reinforcing the categories and relationships among the categories that emerged from the initial interviews.

Data Analysis

The researcher was guided by Charmaz' (2006) framework for grounded theory analysis, engaging in three levels of coding: open, focused, and theoretical. Coding allows the researcher to stop and consider analytic questions of the gathered data (Charmaz, 2006). Initial, or open, coding involves studying segments of data for "analytic import" (p. 42). The second major phase, focused coding, requires the researcher to select the most useful initial codes and test them against the data (p. 42). During the theoretical coding process, the researcher "weaves the fractured story back together" (Glaser, 1978, p. 72) by integrating the focused codes to form a coherent narrative. The researcher used N-VIVO 9 software throughout the coding process.

Results

Several core themes emerged from the participants' descriptions of their experiences of seeking and utilizing supports while they worked toward their academic goals. These include the benefits and challenges of using accommodations, the role of DSS on participants' academic experiences, and issues regarding disclosure and stigma.

Benefits and Challenges of Using Accommodations

According to the participants, accommodations help mitigate challenges related to their psychological disabilities, particularly for those who identified themselves as having anxiety or a mood disorder such as depression or bipolar. Specific challenges include the inability to focus or concentrate during class time, difficulty taking tests in a large group setting or within a set timeframe, and feeling anxious when attending certain classes. Many participants stated they did not ask for accommodations in every course but only when they felt they were needed for them to be successful. Most expressed they were "grateful" to have accommodations and other supports provided by DSS.

Participants received a variety of accommodations, including note taking, extended time and/or a distraction-free environment for testing, frequent breaks, access to notes/power points, preferential seating, excused absences when disability related, and priority registration. The two most frequently cited accommodations were testing accommodations (e.g., extended time, distraction free testing environment) and the use of a note taker or access to instructors' notes

and power points. Overall, the participants described the accommodations as "helpful" and "necessary." However, they noted some challenges to receiving and using their accommodations.

Testing accommodations. Participants reported testing accommodations allowed them to concentrate and feel less anxious when taking exams. One student credited this accommodation as allowing her to be successful in her classes that required a lot of testing, "I would take the tests in the DSS office. That was very helpful. I would have never passed without the extended time." Another participant stated, "I would never be able to finish tests on time. I know the information, but have a lot of trouble focusing." However, difficulties arose when students had questions regarding the test and were not able to ask the professor because he or she was unavailable. Taking tests in a professor's office was also challenging, as the professors often made phone calls or had other students stopping by during office hours. According to one participant:

Sometimes, I like extra time, but I like taking it with the class because I have questions and it is impossible to get a hold of the professor to ask questions [while taking the test]. In one class, I asked the professor if I could take it with class but with extra time, but he said no, I had to choose. Most let me have time if I take it with the class, but some don't.

"It's tough because you have to make a choice," stated another participant, "you need the quiet space but then you can't ask questions, and sometimes the directions or questions are confusing. I tried taking tests in a professor's office, but there were too many interruptions." Most participants stated they had to choose between the benefits of the testing accommodations or being able to ask the instructor questions regarding the test. The majority of the participants made this decision on a class-by-class basis.

Note taking accommodations. Almost all participants receive, or have received, a note taker or access to the instructor's power points or notes as an accommodation. Most participants stated this accommodation is beneficial because it is difficult for them to concentrate on information presented during class and take notes at the same time and they would not "know what is going on" without notes provided to them. In addition, symptoms of their psychological disability

often interfere with their ability to take quality notes. As one participant described, “sometimes the depression affects how well I remember things and how I interact so having the notes really helps.” According to another participant, “the note taking is absolutely key because I can’t keep up and if I can’t focus on class and understand what is going on I can use the notes [from the note taker] as a backup.” The quality of the note taker is also important:

There is definitely variation in the quality of notes, which makes a difference. In history, the guy was really organized and he typed everything. It was 16 pages long per day. It was amazing. I did so well in that class and a big part of it was the notes.

This accommodation, however, involves several challenges, including finding a note taker, receiving quality notes, and issues of confidentiality. Some participants reported not being able to get a note taker, particularly when the professor only announces the request once. An additional challenge was receiving notes once a note taker is assigned:

In one class, the note taker never provided me with notes...it makes it hard because I need notes to be successful on tests; I can’t concentrate and take notes at the same time...my English teacher wouldn’t get me one and by the time she did it was too late...I was too far behind.

Another participant experienced the same frustration:

The teacher said there was nothing he could do and was not very understanding about it. It’s his job to get the note taker and make sure we get the notes because the note taker doesn’t even have to know who we are. We got a new one but no notes yet. Not sure how well I’m going to do in that class.

Some find even when they do receive student notes, there are problems with the quality. As one student explained, “Rarely do I have problems getting one, but rarely do I have an excellent one.” Some described their note takers as “inconsistent,” “awful,” and “disorganized.” Also, the notes were sometimes difficult to read, “The note taker I had in the other English class was a terrible note taker. Wrote in cursive you couldn’t read, she would show up late to class. It wasn’t help-

ful.” Also, some participants felt the note takers are not provided enough information regarding the note taking process, and therefore often do not follow through. According to one participant, “It’s confusing for them; they don’t know what to do. They don’t know they get money, where to go to get a copy card...most professors don’t even know.” Many participants wished they were able to switch note takers if there was a problem or receive the instructor notes until they were comfortable asking a class mate to serve as their note taker, “Being able to switch would be great...it’s [the quality of the notes] always better when I ask someone I’ve gotten to know.” Indeed, participants seemed to find more success when they knew someone from a previous class or if they waited a few weeks until they were comfortable asking someone for notes. One student commented, “When I ask someone specifically, they are great and really follow through.” One participant is in a cohort and takes her classes with the same students, “I’m really lucky because I found someone who takes great notes the first semester I was in a cohort, and she does it every semester.”

Another issue regarding note taking involves the issue of confidentiality. Some professors announce the student’s name or indicates who needs the notes in front of the entire class:

I find it ironic they’ll make an announcement in class, “An anonymous person needs a note taker, if you are willing to take notes stay after class,” and then after class, a lot of students are still there and the instructor will say, “Oh [student name], here is your note taker.” It can be embarrassing.

In fact, confidentiality was a frequently mentioned concern among participants regardless of the type of accommodations they received. As one student stated, “Confidentiality is definitely an issue... there is a stigma attached to a disability sometimes...and it’s really no one’s business.” According to another student, “Anonymity is definitely an issue because of the...stigma.” As a consequence, some participants stated they would often wait a few weeks to see if they felt they needed notes in a particular class before requesting a note taker.

Because of the challenges regarding note taking, participants made several suggestions for improvement, such as the professors being more proactive in securing a note taker, providing their power points to

the student consistently, and adhering to the confidentiality policy. One participant suggested, “The professor could be more persistent, bring it up in class, follow up through email, etc. Because they need them, and every day that goes by without notes it’s harder and harder.” According to another participant:

Actually getting a note taker would be great, the professors need to follow through more...it’s understandable if they forget, but it’s frustrating because you don’t want to ask before class because then everyone knows. And professors tend to forget to be hush hush about it sometimes. I’m not necessarily that upset about it, because I deal with it... but in terms of other students, I can see that it can be upsetting or intimidating.

Most participants agreed having access to the instructor’s power points or providing their notes would mitigate difficulties regarding note takers:

I have access to power points most of the time, but sometimes it’s an issue. I wish it was an accommodation. I got into an argument with one of the professors, he refused to send me his notes and power points but it is impossible to take notes in that class.

Another suggestion was for DSS to allow students “...the right to dismiss and find another note taker; if that was stated in writing, it’s not as much of a break in contract.”

Multiple and frequent breaks. In addition to testing and note taking accommodations, another frequently mentioned accommodation was the ability to leave class and take frequent breaks. Some participants experience panic attacks in class and being allowed to leave, or even knowing they can leave class without penalty, alleviates some of the pressure and anxiety. Many participants do not receive this as a formal accommodation, but find some professors are willing to work with them when they disclose the nature of their disability and ask for this additional accommodation. However, most would prefer it to be a “required” accommodation so they would not have to disclose their psychology disability to their professors or ask for “special treatment.”

Suggestions for accommodations. The most common suggestion for additional accommodations

not offered by their university was extended time on assignments. Most participants said they would not use this accommodation often, but only when the symptoms of their psychological disability prevented them from being able to concentrate. As one participant stated:

If you are in a severely depressed period, you are not going to be able to do what you need to do. I understand the difficulty regarding the policy of needing a hard deadline, but extra time [on assignments] would be very helpful. Tests, too, if you are in a place when you can’t concentrate, can’t think, how well are you going to do?

According to another participant, “Depression...it eats energy. I have these times that I call dead; I have no energy and I just sleep.” Several others mentioned the effects of medication, which makes them tired and unable to “think clearly.”

Many participants described how the pressure of completing assignments became a “vicious cycle,” as their anxiety makes it difficult to concentrate on assignments, which then causes them to be late or not complete the assignments in a timely manner, which increases their anxiety. Participants also described the difficulty of completing multiple assignments during a short period of time:

If it wasn’t three assignments due on the same day. If you can’t concentrate the week of, and can’t focus at home to do the work, and you don’t feel confident to turn in the work you are capable of; having three deadlines on the same day makes you feel that much worse.

Some participants reported their professors work with them and provide extended time on assignments as an informal accommodation, but others do not. Therefore, they would like extensions for assignments to become a formal accommodation. As one participant stated, “If that was actually written down [as an accommodation] then the student themselves wouldn’t feel so uncomfortable asking for that.” Many stated just knowing they had that option, even if they did not use it, would alleviate some stress and anxiety.

Although participants described challenges to receiving accommodations, all agreed they helped them be successful in their course work. Most said they

would not perform as well in their classes without their accommodations, and some stated they would have “failed out” or “given up” without the benefit of accommodations and the assistance provided by DSS.

The Impact of Disability Support Services

Participants reported DSS at their university has been integral not only to their academic achievement, but allowing them to stay in school. As one participant described:

It does help knowing if I really do have an issue, I can be able to express that and be understood and not have it destroy my life because it's already affected my life thus far. It really is nice having it there.

Students learned of DSS through a variety of ways, including high school counselors, freshmen orientation, the university website, and course syllabi. Most participants registered with DSS their first semester of college. Those who waited stated they wish they sought accommodations sooner, and reported failing classes or having to withdrawal from classes. One participant who waited until her junior year to register with DSS stated:

I have to say I wish I did this a lot earlier. . . freshmen or sophomore year. . . it's kind of a cyclical thing, each year had its bad points but some have been way worse than others. I think if I did this earlier, I would have been more successful early on.

Indeed, many participants stated they would not have been able to stay in school without the support provided from DSS. Typical comments included, “It’s allowed me to stay in the program if I’m honest,” and “It’s definitely a big plus and I don’t think I would be here if they weren’t here.”

The majority of participants identified additional supports, other than accommodations, offered by DSS that are beneficial and integral to their academic success. Supports include advising, intervening with professors when necessary, help with time management and organizational skills, a feeling of security knowing they have someone on campus who understands their challenges, guidance regarding how to handle challenges with courses, career counseling, goal setting, and guidance on when to withdraw from a course when

necessary. For all participants, the most salient benefit of being registered with DSS and receiving services was the knowledge they had a support system and were not “out there all alone.”

As previously discussed, many participants have had difficulty completing their assignments on time. Therefore, assistance with time management and organization is beneficial to most participants:

DSS has made the workload I have to do a lot more manageable. It gives me a way to relate to another person when I feel overwhelmed with an assignment. Instead of procrastinating I can dive right in. It helps me tackle problems step by step with another person instead of looking at a stressful workload and getting overwhelmed.

Students meet with DSS staff not only for assistance with time management, but for advice and support throughout the semester. Specifically, participants reported receiving advice regarding what courses to take and how to handle challenges as they arrive. As one student observed, “You go to class prepared as best as you can be, assignment wise or mentally, but sometimes you fall short, so having that option, ‘I need some help today,’ that’s really nice.” Participants also perceive a difference in their interactions with professors when they present the DSS letter when asking for accommodations, “I can openly explain to teachers and have documentation, yes, I have a real disability and they can see that and then they make the accommodations.”

Participants also appreciated the immediacy of services and the sense that the DSS staff cares about their success and well-being:

I was able to get a meeting very quickly, within the week I emailed her I saw her. And she was very nice, and it surprised me how much that makes a difference but when you’re nervous the person you are talking to being friendly and empathetic is really helpful. . . how they treated me when I walked in the door. . . that really helped me.

According to another participant, “It’s good to know someone is there as a resource. Also, it’s good that someone on campus knows I have a psychological issue so it’s a support system.”

The most common suggestion regarding DSS involved the notification process. At this university,

DSS requires students to pick up a letter detailing their accommodations and present it to their professors. Some participants are satisfied with this process and feel it is beneficial to discuss their accommodations with the professors in person. One student summed up this perspective by saying, “I like giving them the letter and starting the conversation... I think the face to face interaction is good.” In addition, some participants appreciate the flexibility of this process because they have the choice to request accommodations. Some stated there are classes in which they do not need accommodations and prefer not to disclose that they have a disability if it is not necessary. Others, however, would prefer a different method of notification:

I feel like they should be notified from disability services, and possibly, I don't know, I think like they should have a meeting or something with faculty members because I feel like they're not fully aware of the student and what's going on.

Many participants agreed it would be beneficial for professors to be notified before the semester. According to one participant, “It would be helpful if the professor did know before the semester so they are prepared mentally, coming from a teacher's point of view.” Some participants would like the DSS specialists to meet with the students and the professor. As one student said, “It would be good if all three people met, that way the specialist could answer questions the instructor had, and everyone would be on the same page.” A few students suggested there should be meetings between academic advisors and their DSS advisor, as they sometimes receive conflicting information. Another suggestion was to have support groups for students with psychological disabilities, as it would be “helpful to know you're not the only one out there.”

Disclosure and Stigma

Although participants were not asked directly about stigma, it was a recurrent theme throughout their interviews, particularly when asked about disclosing their disability and asking for accommodations. Many expressed discomfort having to ask for assistance, but did so because they knew receiving supports and accommodations were integral to their ability to achieve their postsecondary academic goals. Also, most participants asserted there is a greater amount of stigma attached to psychological disabilities and only disclose

the nature of their disability when it is “absolutely necessary” or “obvious” they were struggling with anxiety or depression or other psychological symptoms. Furthermore, most participants described stigma as a pervasive problem and felt most people held misconceptions or negative attitudes regarding psychological disabilities. One student spoke for many other participants by saying, “There are so many misperceptions about it... the media only portrays the extreme.”

Most participants stated they did not reveal the nature of their disability out of concern of stigma and that professors would “think less” of them. A typical comment about this perspective came from a student who said, “As far as professors, there isn't anyone I can think of that I would want to talk to about it. I've had it used against me. I don't like to tell people unless it's absolutely necessary.” As previously mentioned, those who did disclose they have a psychological disability only did so when their symptoms were evident or interfered with their ability to meet course expectations. For all, the hesitancy again stemmed from concern regarding stigma. “If someone doesn't understand they can treat you differently and it's not fun.” Another participant reports he is discouraged from disclosing because “I think I'm going to be treated differently because of it... there are times I purposefully leave out what I have because I'm afraid of being discriminated against.” Some felt their grades may be impacted if a professor knew they had a psychological disability. One student reported, “My concern with all professors is that if I have a disability they're going to look for something to take off.” For others, the symptoms of their disability interfere with asking for assistance, exemplified by the participant who reported that “sometimes the anxiety makes it hard to get up the guts and go ask to meet with somebody and talk about what's going on and the problem you're having.”

Participants also described hesitancy to disclose to their friends and family as well. One student said, “I don't explain to my professors I have bipolar because of the stigma. But I don't like to with most of my friends either. In the past, some of my friends attribute my moods to bipolar... no, I'm just human.” According to another participant:

The thing about depression is most people don't look at it as a disability. There are people in my family I just don't talk to about it because they don't get it. They just can't comprehend that you can't put

yourself in a state of mind because that's all they know. You can't expect the teacher to...they might be empathetic but they might not get it...they may have their biases.

Many participants felt attitudes regarding disability differ depending on the type of impairment and are concerned about negative attitudes and misinformation regarding psychological disabilities. Several have dual diagnoses and will discuss their other disability instead:

I think people are more accepting of visible disabilities, something concrete. I wear a hearing aid, and everyone understands that. I told one professor I had depression, and she was like, "Everyone has problems," so I'm really careful about who I disclose to now.

When explaining this phenomenon, participants used words like "real," "concrete," and "actual" to describe how people view other types of disabilities, particularly visible disabilities or medical conditions. For example:

I think it is more societal standards that drive that with the stigma. With migraines, there is a clear and distinct issue. Like I'll throw up and I can't concentrate. You can tell I don't feel good. With the depression, I've been battling the stigma with myself for a very long time and because a lot of people don't see it as something [pause], I don't know how to word this. So people don't see it as a real thing. There's definitely negativity because a lot of people don't understand it or try to understand it. They're like, "You're just sad." It's more than that; you're so far in the dumps you don't know what happiness feels like.

Other participants used examples such as a family member dying or having an injury. They were comfortable asking for an assignment extension or an excused absence because they felt the professors would understand:

It's a little fear of stigma. It's very hard to explain. It's hard to go to a professor and say (pause), "Last semester I broke my leg and was late sometimes and had to move my seating" and they were re-

ally cool about it, but I can't imagine going up to a professor and saying I've changed my meds and am going to be a little flaky. They don't view it in the same way.

When asked why they sought assistance despite their concerns, all responded it was out of need or necessity. One student said, "I guess initially it was that I knew things were getting to the point I couldn't handle them anymore so I had to get help." Although the majority (n=12) of participants sought accommodations their first semester and asked for them in most of their classes, several waited to register with DSS until it "was almost too late," or there was "no choice" because of concern of failure. Indeed, a few participants stated they had dropped out of courses in the past or they were in danger of having to drop out of school:

I mean the reason I sought help was fear of ruining my entire college career that one semester. Mind you, I don't think I did a medical withdraw, which I should have but I didn't know [about] it at the time. I wish I had, but it turned out being okay anyway. It was more like the emergency type situation, and it's the same with getting help for the mood disorder because I was at my breaking point....I do wait too long sometimes to seek out an appointment or seek out help because I'm worried people will think less of me. That's one problem I'm still working on...it's a self-stigma I guess, too.

Several participants also discussed self-stigma, either as an impediment to seeking out supports or as something they have "overcome" and have learned to "deal with." When asked how they were able to do this, they credited support from DSS, family or friends, and their own abilities and strengths. One student spoke to this issue by saying, "I just realized everyone has problems, mine have a different label... but I'm not worse or better than anyone else." Another participant stated, "I just had to get over my pride and accept I need help." Learning more about disabilities was helpful, too. According to one participant, "DSS was great with that. They helped me realize I'm not alone. Now I'm an advocate and will speak out when I hear misconceptions."

The participants' descriptions of their experiences seeking and utilizing assistance from DSS revealed several key categories to help explain the role and

impact of these services on their academic achievement. Participants credited assistance provided by DSS, including accommodations, as integral to their academic achievement. However, they offered suggestions regarding how to further support students with psychological disabilities. They also discussed the challenges presented by disclosure and stigma and the need to overcome these concerns in order to receive the supports needed to achieve their academic goals.

Discussion

This study explored the experiences of college students with psychological disabilities utilizing accommodations and other supports provided by DSS to help them achieve their postsecondary educational goals. Although research indicates a high percentage of individuals with psychological disabilities drop out of their college programs (Salzer, 2012), the 16 participants in this study were enrolled full-time at a four year university and maintained a 2.5 GPA or higher. Six participants were seniors at the time of the interviews and were on schedule to graduate by the end of the academic year. The seven juniors stated they were on track to graduate the following year. Clearly, participants found ways to deal with the demands college students, with or without disabilities, experience. Perhaps more significantly, they were able to cope with the challenges presented by their psychological disability, such as managing their symptoms, finding and accessing appropriate supports, and dealing with stigma.

It is evident from the participants' narratives that accommodations and other assistance provided by DSS are essential to their academic achievement. Indeed, most, if not all, participants believe they would not be able to achieve their academic goals without these supports. Disability Support Services provides a wide variety of assistance participants deemed "necessary" for their academic achievement, including help with time management and organizational skills, advising, advocacy, and goal setting. The positive impact of knowing they were "not alone" was a salient theme throughout the interviews. Furthermore, accommodations such as the ability to take breaks during class, note taking and extended time on tests, and testing in a distraction free environment helped mitigate functional limitations students experienced due to their psychological disabilities. Findings from the current study are consistent with Kurth and Mellard's (2006) findings

in their mixed method study, in which they conducted focus groups and surveys to examine accommodations used by college students with disabilities. The students they surveyed identified note takers and extended time on tests as the most effective accommodations they received in college, 87.5% and 85.7% respectively (Kurth & Mellard, 2006). However, results from their focus groups indicated mixed feelings regarding these accommodations, particularly note taking. These included problems with confidentiality, obtaining a note taker, and quality of the notes (Kurth & Mellard, 2006). These challenges were similar to the concerns expressed by participants in the current study.

It is important to note the cost/benefit relationship of seeking and receiving accommodations, including the risk of stigma and being treated differently by professors and other students. Maintaining confidentiality is a closely related issue, particularly in regard to the notification process and obtaining a note taker. Some professors breached university rules regarding confidentiality at times, causing the students to be embarrassed or feel uncomfortable. The fear of stigma may prohibit some from seeking assistance at all. A few participants in this study reported they waited until they were at risk of failing because of these concerns. Blacklock et al. (2003) noted five major barriers impacting the delivery of services and education to students with psychological disabilities: stereotypes and stigma, access to information and services, the complex nature of psychological disabilities, access to resources, and organization and institutional barriers. Of these barriers, stigma and negative stereotypes are perhaps the most frequently cited in the literature (Becker, Martin, Wajeih, Ward, & Shern, 2002; Eudaly, 2002; Sharpe et al., 2004). Furthermore, according to Liebert (2010), "many students don't actually go to their professors until after they've taken their first exams and realized that they really do need accommodations to perform well in class" (p. 2). He further states these fears are not completely unfounded, as some faculty mistakenly believe individuals with psychological disabilities pose a risk to themselves and others (Liebert, 2010).

Even though students are not required to disclose the specific nature of their disability, some still feel hesitant to identify they have a disability because they are afraid their professors will think less of them or treat them differently. Some expressed concern they would be "found out" because their symptoms were noticeable. This may indicate some self-stigma and

internalization of negative beliefs. Also, some felt it was necessary to disclose their specific disability in order for professors to understand their challenges. This disclosure was met with varying degrees of success.

Participants were able to recognize they needed supports and followed the necessary steps to receive accommodations. They sought, and continue to seek, assistance despite fears of stigma. Although some waited until the situation became “dire,” they were still able to “overcome” their concerns and ask for assistance. Furthermore, most did seek services at the beginning or near the beginning of their college careers. There were also able to identify accommodations and supports that work for them and make suggestions regarding what other services could be beneficial to their success. These participants were registered with DSS and receiving accommodations, so they have been able to deal with their fears and concerns regarding stigma, at least to some degree. Throughout the interviews, it was evident the participants’ desire to succeed and achieve their goals was a motivating factor in seeking assistance:

I ask for help because I know I need help. I realized I don’t need to be embarrassed about it because a lot of people have it [a psychological disability]. I think it’s more about myself because the teacher doesn’t encourage you. It’s your choice [to ask for accommodations].

Others discussed wanting to do well and wanting to achieve their goals as chief motivators to asking for assistance. One student, for example, said, “If I want to graduate, I have to,” and “I hate failure so I deal with it...I don’t have a choice.” This is consistent with Perry and Franklin’s (2006) findings in their study examining the experiences of college students with AD/HD: “The drive to achieve along with the need for self-encouragement and motivation was an important strategy used by these students to continue their existence in college” (p. 106).

It is important to note the majority of participants received some sort of assistance in the K-12 setting; seven had either IEPs or Section 504 plans and four received accommodations informally at private schools. They knew the benefit of assistance, and many were encouraged by their teachers, counselors and case managers to seek accommodations in their postsecondary educational setting. Many also saw psychiatrists and/or therapists and the majority took prescription

medication for their diagnosed disorder at one time or another. Therefore, they had documentation either through the school system or through a mental health professional. This may have made it easier for them to register with DSS and become eligible for accommodations. The required documentation can be expensive to obtain privately, and individuals in crisis may have difficulty finding the energy and motivation to procure the required documentation.

Implications for Practice

The participants’ narratives indicate several implications for supporting college SWPD. Specifically, DSS providers may want to consider ways to encourage students with psychological disabilities to seek assistance. Disability Support Services clearly played a significant role for the participants in the study. However, college SWPD seek accommodations at a lower rate than peers with other disabilities. Accordingly, DSS providers should consider ways to identify and assist students with psychological disorders who do not have that history and familiarity with services. Perhaps more outreach during orientations, coordination with other student support services (e.g., counseling services, admissions office), as well as university-wide efforts to address stigma, would encourage students with psychological disabilities to seek assistance or accommodations. Also, DSS personnel may want to consider additional ways to facilitate diagnostic testing and the identification process, which is often expensive and can be overwhelming, particularly for individuals in crisis.

There is also a need for increased faculty awareness regarding the challenges and needs of SWPD. Faculty need to understand, if they do not already, that the vast majority of SWPD do not pose a threat to them or other students and have the ability to be successful and thrive in postsecondary educational settings when given the appropriate supports. It is also important for faculty and students to recognize psychological disabilities are “real” and students with these disabilities are not merely providing excuses when they have difficulties.

Universal Design for Instruction (UDI) can be an effective classroom strategy to enhance academic achievement for SWPD. UDI is an approach to teaching designed to maximize learning for all students, regardless of the presence of a disability, through the proactive use of inclusive instructional strategies and assessment methods (McGuire, Scott, & Shaw,

2003; Scott, McGuire, & Embry, 2002). Of particular relevance for this study is how UDI could address challenges involved with note taking and assessment accommodations, particularly in regards to stigma. It is also important to consider ways to increase faculty knowledge and use of the principles of UDI.

Further Research

There are several implications for further research. For example, it would be beneficial to explore the experiences of individuals with psychological disabilities attending postsecondary institutions who do not seek formal accommodations or other assistance from DSS. Specifically, what types of supports and services are they using? How are they coping with and managing the challenges presented by their disability? Do they seek accommodations informally, and if so, how do their professors respond? This could be done through a variety of research methods, including a mixed methods study involving a survey and individual interviews. It would also be helpful to survey a larger sample of individuals with psychological disabilities regarding the accommodations and supports they receive from DSS. This study explored the experiences of 16 individuals; surveying a larger sample may provide additional insight into the supports and services beneficial to college students with psychological disabilities. It would also be interesting to explore the perceptions of students with disabilities enrolled in classes where the instructor adheres to the principles of UDI (McGuire, Scott, & Shaw, 2003).

Conclusion

Barriers impacting educational experiences of students with psychological disabilities include stereotypes and stigma, access to information and services, the complex nature of psychological disabilities, access to resources, and organization and institutional barriers (Blacklock et al., 2003; Sharpe et al., 2004). However, the participants in this study were found to be working towards achieving their academic goals with vital supports provided by DSS, including accommodations. Without the benefit of these supports, most participants believed they would not be successful in their postsecondary pursuits. Despite some challenges regarding accommodations and concerns of stigma, accommodations mitigated the functional limitations presented by their disabilities. Further-

more, DSS provided additional supports such as goal setting, advocacy, and training in organizational and time management, which participants also deemed necessary for their success.

References

- Becker, M., Martin, L., Wajeeh, E., Ward, J., & Shern, D. (2002). Students with mental illnesses in a university setting: Faculty and student attitudes, beliefs, knowledge and experiences. *Psychiatric Rehabilitation Journal*, 25(4), 359-368.
- Belch, H. (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.
- Best, L., Still, M., & Cameron, G. (2008). Supported education: Enabling course completion for people experiencing mental illness. *Australian Occupational Therapy Journal*, 55, 65-68.
- Blacklock, B., Benson, B., & Johnson, D. (2003). *Needs assessment project: Exploring barriers and opportunities for college students with psychiatric disabilities*. Unpublished manuscript, Disabilities Services, University of Minnesota, Minneapolis, Minnesota.
- Carter, E. W., Trainor, A. A., Ditchman, N., & Owens, L. (2011). A pilot connecting youth with emotional or behavioral difficulties to summer work experiences. *Career Development for Exceptional Individuals*, 34(2), 95-106.
- Charmaz, K. (2006). *Constructing grounded theory*. Thousand Oaks, CA: Sage.
- Cleary, M., Walter, G., & Jackson, D. (2011). Not always smooth sailing: Mental health issues associated with the transition from high school to college. *Issues in Mental Health Nursing*, 32, 250-254.
- Collins, M. E., & Mowbray, C. T. (2008). Students with psychiatric disabilities on campus: Determining predictors of enrollment with disability support services. *Journal of Postsecondary Education and Disability*, 21(2), 91-104.
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Thousand Oaks, CA: Sage Publications.
- Eudaly, J. (2002). A rising tide: Students with psychiatric disabilities seek services in record numbers. *The George Washington University: Heath Resource Center: Quarterly Newsletter*, 3, 1-4.

- Gallagher, R. (2009). *National Survey of Counseling Center Directors 2009*. Retrieved from <http://www.iascinc.org/2009%20National%20Survey.pdf>.
- Glaser, B. G. (1978). *Theoretical sensitivity*. Mill Valley, CA: The Sociology Press.
- Hamblet, E. C. (2009). Be consistent in evaluating documentation, but flexible in providing accommodations. *Disability Compliance for Higher Education*, 15(3), 6.
- Kiuhara, S. A., & Heufner, D. S. (2008). Students with psychiatric disabilities in higher education settings: The American with Disabilities Act and beyond. *Journal of Disability Policy Studies*, 19(2), 103-113.
- Kurth, N., & Mellard, D. (2006). Student perceptions of the accommodation process in postsecondary education. *Journal of Postsecondary Education and Disability*, 19, 71-84.
- Legard, R., Keegan, J., & Ward, K. (2003). In-depth interviews. In J. Ritchie & J. Lewis (Eds.), *Qualitative research practice: A guide for social science students and researchers* (pp. 138-169). Thousand Oaks, CA: Sage Publications.
- Liebert, D. T. (2010). Help faculty members overcome fear of psychiatric disabilities. *Disability Compliance for Higher Education*, 15(7), 1-16.
- McGuire, J. M., Scott, S. S., & Shaw, S. F. (2003). Universal design for instruction: the paradigm, its principles, and products for enhancing instructional access. *Journal of Postsecondary Education and Disability*, 17(1), 3-9.
- Megivern, D., Pellerito, S., & Mowbray, C. (2003). Barriers to higher education for individuals with psychiatric disabilities. *Psychiatric Rehabilitation Journal*, 26(3), 217-231.
- Mental Health: A Report of the Surgeon General-Executive Summary*. (1999). Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Mental Health.
- Newman, L., Wagner, M., Cameto, R., Knokey, A. M., & Shaver, D. (2010). *Comparisons 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-2 (NLTS2)*. Menlo Park, CA: SRI International. Retrieved from www.nlts2.org/reports/2010_09/nlts2_report_2010_09_complete.pdf.
- Perry, S. N., & Franklin, K. K. (2006). I'm not the gingerbread man! Exploring the experiences of college students diagnosed with ADHD. *Journal of Postsecondary Education and Disability*, 19, 94-109.
- Preece, J. E., Beecher, M. E., Martinelli, E. A., & Roberts, N. L. (2005). Students with emotional disabilities: Responding to advisors' concerns and questions. *NACADA Journal*, 25, 42-46.
- Salzer, M. S., Wick, L. C., & Rogers, J. A. (2008). Familiarity with and use of accommodations and supports among postsecondary students with mental illnesses. *Psychiatric Services*, 59(4), 370-375.
- Salzer, M. S. (2012). A comparative study of campus experiences of college students with mental illnesses versus a general college sample. *Journal of American College Health*, 60(1), pp. 1-7.
- Sandelowski, M. (1995). Sample size in qualitative research. *Research in Nursing & Health*, 18, 179-183.
- Scott, S. S., McGuire, J. M., & Embry P. (2002). *Universal Design for Instruction fact sheet*. Storrs, CT: University of Connecticut, Center on Postsecondary Education and Disability.
- Sharpe, M. N., Bruininks, B. D., Blacklock, B. A., Benson, B., & Johnson, D. M. (2004). The emergence of psychiatric disabilities in postsecondary education. *Examining Current Challenges in Secondary Education and Transition*, 3(1), 1-5.
- Shaw, S. F., & Dukes, L. L. (2005). Performance indicators for postsecondary disability services. *Journal of Developmental Education*, 29(2), 10-19.
- Stein, K. F. (2012). Experiences of selected emerging adults with emotional or behavioral difficulties in higher education. *Career Development and Transition for Exceptional Individuals*, 35(3), 168-179.
- Strauss, A. S., & Corbin, J. M. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Thousand Oaks, CA: Sage Publications.
- Unger, K. V., & Pardee, R. (2002). Outcome measures across program sites for postsecondary supported education programs. *Psychiatric Rehabilitation Journal*, 25(3), 299-303.

About the Author

Kathleen M. Stein is an Assistant Professor in the Department of Special Education at Towson University. She holds a Ph.D. in Curriculum and Instruction, with an emphasis in special education and urban education, from the University of South Florida. Prior to her doctoral studies, she worked as a special educator and general educator. Her research interests include promoting successful transition of young adults with emotional and behavioral difficulties. She can be reached by email at: kstein@towson.edu

Author Note

The author wants to thank Susan Willemin and Karen Oppenheimer, the Director and Associate Director of Disability Support Services at Towson University, for the support and encouragement they provided throughout this study. The author would also like to acknowledge Kerri Chambers for the critical review of the manuscript.

PRACTICE BRIEF:

Examination Accommodations for Students with Sensory Defensiveness

**Kieran Lewis
Clodagh Nolan
University of Dublin, Trinity College**

Abstract

Traditional examination accommodations include extra time, scribes, and/or separate venues for students with disabilities, which have been proven to be successful for the majority of students. For students with non-apparent disabilities such as sensory defensiveness, where sensitivity to a range of sensory information from the environment can severely limit one's ability to engage in activities, accommodations such as those advocated above may not prove effective in removing barriers and promoting fairness and equity in examinations. A pilot study was undertaken by the Unilink and the Disability Services within Trinity College, Dublin to explore the difficulties encountered by students experiencing sensory defensiveness and to examine the efficacy of the provision of low distraction examination venues for this population. The Unilink Service is a college-based Occupational Therapy support service for students experiencing mental health and/or physical sensory difficulties (Nolan & MacCobb, 2006; Nolan, Quinn & MacCobb, 2011). The aim of the service is to support students in their college journey, to enable them to engage in their student role, and to complete their studies throughout their college career. A three phased descriptive non-experimental approach was taken within this pilot study using questionnaires and audits. Findings indicated that a significant proportion of the students availing of traditional examination accommodations were experiencing difficulties with auditory and visual distractions. Evidence supported the findings that the provision of low distraction examination venues enabled students experiencing sensory defensiveness to better participate in their examinations and that the low distraction venues were appropriate to their needs.

Keywords: Postsecondary education, examination accommodations, sensory defensiveness

Examination accommodations such as additional time and alternative formats are some of the most common accommodations used by students with disabilities within school or college (Barnard-Brak, Sulak, Tate, & Lechtenberger, 2010; Ketterlin-Greller, Alonzo, Braun-Monegan, & Tindal, 2007). These accommodations have proved successful for students with some non-apparent disabilities such as dyslexia (Gregg, 2009; Gregg & Nelson, 2010) but may have limited usefulness for those with other non-apparent disabilities such as sensory defensiveness or sensory over-responsivity, which can be experienced by students with Attention Deficit /Hyperactivity Disorder (ADHD), Asperger's Syndrome (AS), and Developmental Co-Ordination Disorder (DCD) (also known as Dyspraxia) as well as some mental health difficulties (Blakemore et al, 2006;

Brown, Cromwell, Filion, Dunn, & Tollefson, 2002; Lane, Reynolds, & Thacker, 2007; & Parush, Sohmer, Steinberg, & Kaitz, 2007). Gregg (2009) maintains that test setting accommodations such as a private or quiet room or a smaller group setting are often recommended by professionals, but there appears to be little evidence to support their effectiveness. The purpose of this article is to expand and evaluate the concept of environmental accommodations appropriate to students with sensory defensiveness within higher education.

Sensory Processing and Sensory Defensiveness

Sensory processing is the means by which we take in information about the environments around us through our senses. However, some individuals can be so hyper-responsive or so hypo-responsive that

their sensory processing interferes with their ability to engage in their daily activities (Brown & Nicholson, 2011). Dunn (1999) suggests that people with atypical sensory processing may display exceedingly high or low thresholds for sensory information. Such individuals require either more sensory information or much less than others; therefore, the ability to attend and focus on the task at hand is affected. Consequently, they are either under-responsive or over-responsive to sensory input or environmental stimuli.

Sensory defensiveness is where a student's neurological system has a very low threshold for sensory information and can be overly sensitive (hyper-responsive) to sensory stimuli which can be triggered by virtually everything in the environment. Pfeiffer and Kinnealey (2003) claim that sensory defensiveness is a negative reaction to certain sensory inputs, which can elicit avoidance, increased arousal, fight-or-flight behaviours, and extreme reactions in response to sensory stimuli such as touch, loud noises, or bright lights. Responses to stimuli tend to be more intense if they are unexpected by the individual. Sensory input can often have a summative effect, which is that prolonged exposure to uncomfortable sensory stimuli can lead to an exaggerated response to a seemingly ordinary event (Miller, Anzalone, Lane, Cermak, & Olsten, 2007). Adults with sensory defensiveness have been found in several studies to report higher levels of anxiety and depression (Engel-Yeger & Dunn, 2011; Kinnealey & Fuiet, 1999). Students with sensory defensiveness can become over-loaded by sensory stimuli (e.g., sound, light, touch, smells, and movement), which can impact upon their completing everyday academic and non-academic tasks in college. Environments such as lecture halls, restaurants, libraries, and examination venues can be overwhelming, leading students to avoid these environments and preventing them from fully engaging in their daily tasks (Johnson & Irving, 2008).

Individuals often develop coping strategies that involve avoidance of activities and environments that provide too much sensory input, which can greatly limit their choice of career, interpersonal relationships, leisure pursuits, and overall participation in daily life (Abernethy, 2010; Kinnealey, Oliver, & Wilbarger, 1995; Pfeiffer, 2002). Students with sensory defensiveness may experience difficulty in filtering out various sensory stimuli from their environment. As a result, many of these students choose to study at home or in low distraction environments and may experience

great difficulty in maintaining concentration in the examination environment.

Test Setting Accommodations

Providing test accommodations for students with disabilities is designed to promote fairness in testing and to promote validity by removing construct-irrelevant barriers (Sireci & Pitoniak, 2006). For the majority of students with disabilities, the provision of extra time in examinations is a very effective form of reasonable accommodation offered in higher education institutes. However, for students with sensory defensiveness, the provision of extra time alone was hypothesised as not being enough for them to engage and complete their examinations satisfactorily. A survey (TCD, 2011) was carried out within the Trinity College, Dublin by the Disability Service, which enabled staff to examine the provision of appropriate test setting accommodations for this group of students. A second follow up study traced students that had identified sensory sensitivity as a problem ($n=8$).

Context

The number of students registered with the Disability Service in Trinity College Dublin with AS, ADHD, and DCD has increased greatly over a four year period from 2008 to 2012 as illustrated in Table 1. A significant proportion of these students reported difficulties in modulating sensory information in venues such as libraries, lecture halls, and examination venues. The Occupational Therapists within the Unilink Service began to examine the environments that the students were functioning within, to ascertain if adaptation of these environments could facilitate better participation in their day-to-day activities.

Research Design and Method

A descriptive non-experimental design that was predominantly quantitative was used in this research. The research was carried out over three phases within Trinity College, Dublin from February 2011 to June 2012 (Figure 1).

Phase I – Questionnaire Design and Distribution

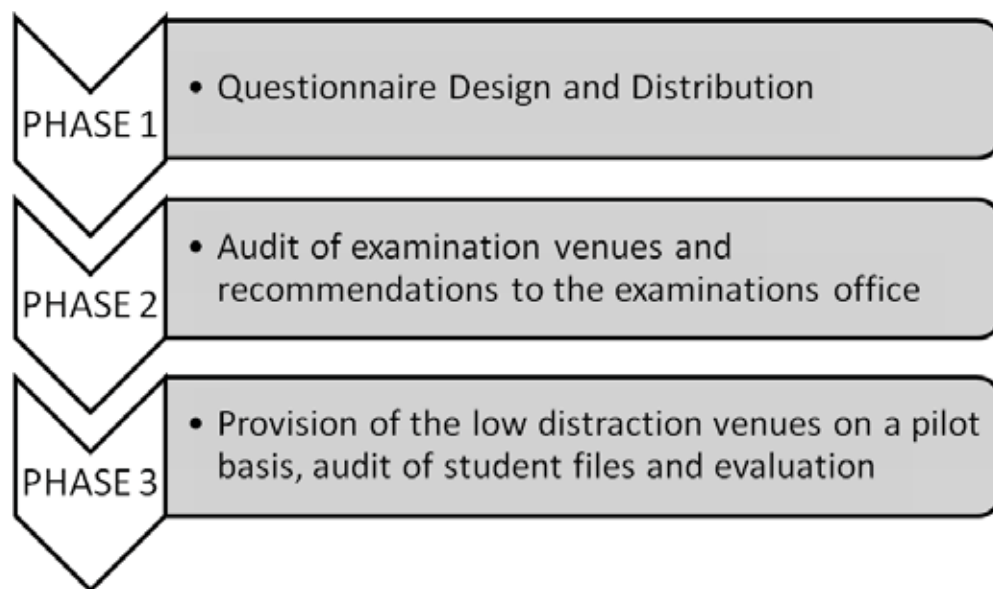
The study aimed to examine and enhance the examination environments for students experiencing sensory defensiveness. In order to meet this aim a questionnaire (see Appendix A) was sent in February 2011 to all students who were availing of examination

Table 1

Numbers of Students with AS, ADHD and DCD registering with the Disability Service in Trinity College Dublin in the period 2008-2012.

Academic Year	2008-09	09-10	10-11	11-12
ADHD	18	20	37	50
AS	18	22	29	39
DCD	2	9	8	26

Figure 1. Three Phases of the Research Design.



accommodations through the Disability Service in Trinity College Dublin (n=371). All surveys designed and utilised within the Disability Service meet the accessible information guidelines used within Trinity College. The purpose of the questionnaire was to examine the experiences of students with disabilities of taking examinations in Trinity College. Forsyth and Kviz (2006) suggest that the initial step in building the questionnaire is to identify the key variables to be measured. This questionnaire was designed specifically for this study using a focus group made up of Occu-

pational Therapists and Disability Officers who had expertise in working with students with non-apparent disabilities. This group formulated the questions to be used in the questionnaire, which centred upon student feedback on examination accommodations and on rating examination venues. In order to ensure face validity, this questionnaire was piloted with three students. Feedback from the students was incorporated into the questionnaire design. For example, the question related to noise was broken down into noise from within or outside the venue. The survey was designed using

a mixture of likert scales and open-ended questions, which allowed students to expand upon their answers. SurveyMonkey™ software (www.surveymonkey.com) was used to distribute the questionnaires.

Results

A total of 102 (27% response rate) students completed the questionnaire. The majority of students with disabilities had used multiple venues and had found them to be excellent. Of the 102 respondents, 87 had taken examinations in the main test centre. This centre contains group venues catering for a maximum of 60 students as well as individual venues. A majority, 87.3% ($n=76$), described the venues as being excellent to good. While the feedback from the majority of students was positive, results indicated that the experience of some students ($n=34$) was very different from the majority. This group of respondents rated the venues as poor or unacceptable. Students were asked to comment on their experiences during the examination. Table 2 illustrates some of the comments made by students.

These comments would suggest that some students were experiencing difficulty processing sensory stimuli during the examination period and within the venues. Based upon these findings and the difficulties that these students reported in meetings with Disability Service and Unilink staff, and upon a literature search in the areas of Attention Deficit / Hyperactivity Disorder, Asperger's Syndrome and sensory defensiveness, the authors hypothesised that providing extra time within a group venue of 30 – 60 students (Figure 2) would not be providing the most effective accommodation for this group of students.

Phase 2 - Audit of Examination Venues and Recommendations to the Examinations Office

As a result of these findings, the literature review, and the experience of two Occupational Therapists working with students experiencing sensory defensiveness and who had completed postgraduate education in Sensory Integration, an audit of the main examination venues used for students with disabilities receiving examination accommodations was conducted in March 2011. This audit examined the venues under the following headings: room capacity/proximity of students to each other, auditory distractions (within and outside the venue), and visual distractions. The findings of this audit indicated that, out of 16 rooms within the main

test centre, there were auditory, visual, and proximity issues in most of the venues. Figure 3 illustrates the types of difficulties students encountered.

Following this audit and the difficulties identified from the questionnaire in Phase 1 (Table 2), recommendations were made to the Examinations Office for the establishment of low-distraction venues on a pilot basis. Criteria were established for choosing venues (see Table 3) and recommendations were made for the set up of the venues (see Table 4).

Phase 3 - Provision of the Low Distraction Venues on a Pilot Basis, Audit of Student Files and Evaluation

As a result of the recommendations, two venues were established (one with four seats and one with three seats) as well as two individual venues for students using computers who also required test setting accommodations (Figure 4). These venues were located in an area of the examination centre where the least number of offices were located.

As part of Phase 3, a further audit of student files of those who were attending the Unilink Service was undertaken to identify students who had reported sensory sensitivity or high levels of distraction. The purpose of this second audit was to identify students and to offer them an assessment using the Adolescent / Adult Sensory Profile (AASP) (Brown & Dunn, 2002). The AASP is a 60 item self-report questionnaire in which the individual is asked questions in relation to how he/she generally responds to sensory information. The aim of the profile is to provide valuable information about an individual's sensory processing and to enable more informed intervention planning (Brown & Dunn, 2002). The development of the AASP involved the evaluation of item face validity, reliability, construct validity, and revisions to ensure that the instrument was understandable by the relevant age group (Rieke & Anderson, 2009).

Eight students were identified during this audit process and were offered the opportunity to work collaboratively with the Unilink Staff in learning more about sensory defensiveness and its impact upon their student role. They explored and developed strategies to manage sensory defensiveness within college and to ensure that the venues were appropriate to their individual sensory preferences. The students were involved in the design of the low-distraction test setting in terms of lighting, space between desks, and levels of auditory distraction. Students were also given an

Table 2

Difficulties Most Frequently Reported by Students with Disabilities

Difficulties experienced most frequently were:

- Noise [within and outside the reasonable accommodation venues].
- Distractions [other students, overcrowding, examinations ending at different times, invigilator (also known as proctor) announcements].
- Temperature [very cold at end of the first term examinations].
- Students with ADHD expressed the view that the high level of people coming and going from the venue caused distraction.
- Students with DCD (Dyspraxia) experienced sensory difficulties with noise, temperature and light.

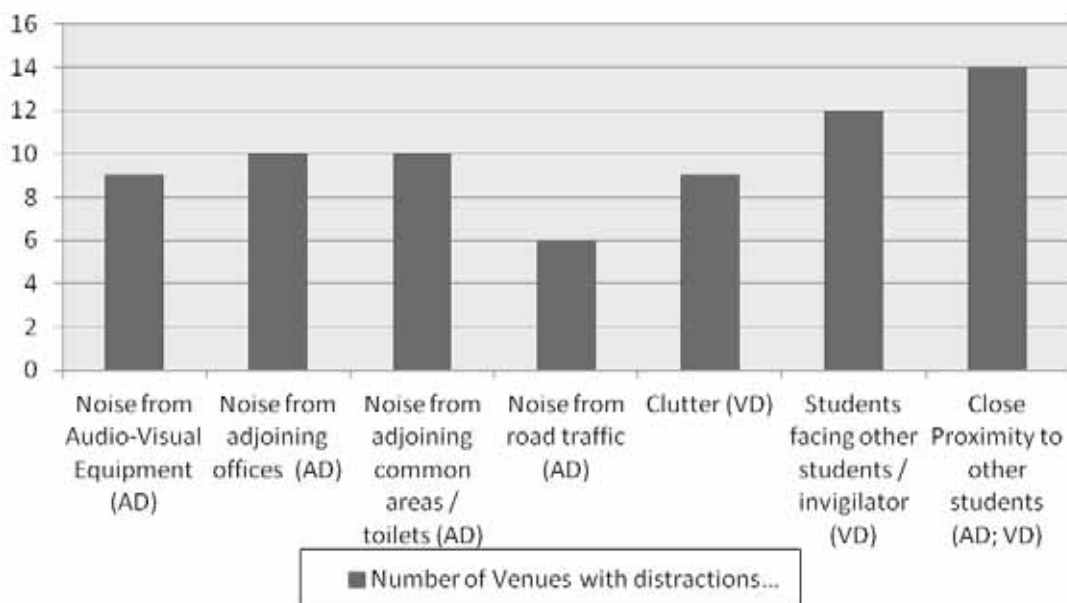
Figure 2. Example of a Group Venue*Figure 3. Frequency of Distractions within the 16 Audited Venues*

Table 3

Criteria for Room Selection

Room Selection Criteria:

-
- Examination rooms to be located away from main road side the building to reduce noise from traffic.
 - Examination rooms to have concrete walls and doubled glazed windows for increased sound proofing.
 - Examination rooms to be located away from departmental offices, toilets, lockers, stairwells, and common seating areas.
 - Examination venues to be well ventilated so that windows or doors do not have to be opened during examinations.
 - Students using a computer but who also require test setting accommodations should have an individual venue.
-

Table 4

Recommendations for the Setup of Low Distraction Venues

Room Set Up Recommendations:

-
- Number of students within the venue to be restricted to allow extra space between desks.
 - Desks should be placed facing the wall within smaller venues. Desks should be placed against blank walls.
 - All unnecessary materials should be placed outside the room for the duration of the examination. These include boxes, audio/visual equipment, unused chairs and tables, etc.
 - Blinds should be used in examination rooms to control the amount of natural light.
 - All computers and audio-visual equipment must be switched off in the room.
 - Invigilators (also known as proctors) to be made aware of the need to reduce auditory distractions such as newspapers, laptops, eating, etc.
 - If there are a number of students sitting their examinations within one room, it is essential that auditory distractions, such as moving about in chairs and people entering and exiting the venue, are kept to a minimum so as not to distract the other students.
 - Cleaning staff / Director of Buildings should be informed of the different examination venues, dates, and times of examinations in order to avoid unnecessary external noise.
 - Earplugs or noise-cancelling earphones to be provided within the room.

Figure 4. The Four Seat Low Distraction Venue



opportunity to visit the venue in the weeks leading up to the examination and mock examinations were run in these venues to help them become accustomed to the testing environment.

Evaluation of the Pilot Test Setting Accommodations

The low distraction venues were piloted during the annual examination period from May to June 2011. Staff from the Unilink Service and the Disability Service observed the venues, invigilators (also known as proctors) were asked to complete a questionnaire (see Appendix B) after each examination, and students were asked for feedback by email following the examination period (see Appendix C). This questionnaire was again designed specifically for this study using a focus group made up of Occupational Therapists and Disability Officers who had expertise in working with students with non-apparent disabilities within the college context. Findings from the invigilators indicated that the low distraction venues were appropriate for the students' needs. Table 5 indicates the mode number of times the invigilators rated the environment as acceptable and the number of distractions that they perceived to be present within the venues.

Students were asked for feedback on their experiences of the low-distraction examination venues via a questionnaire. Five out eight students responded to this questionnaire. Students indicated that the low-distraction venues were "perfect," with one student commenting that "It was great as it really helped minimise distraction levels and it was easier for me to concentrate." Another commented in relation to the

set up of the room that, "Definitely the desk facing the wall, as there was nothing to distract you from your exam." All found that there was adequate space between the desks to minimise distractions. Two out of the five students used earplugs during the examination so that "the noise did not really matter." All students found the lighting to be appropriate to their needs. One student commented that it was an "excellent service, and really helped me to relax into the exams."

Limitations

This study was carried out on a pilot basis within one University setting based upon eight students' use of the low-distraction venues. Comparisons were not made with the students' academic performance and these variables may be considered in future studies. Apart from the Adult/Adolescent Sensory profile (Brown & Dunn, 2002), the assessments/questionnaire used within this study were designed specifically for this research. These results cannot be generalised for all students with sensory processing difficulties. However, they may provide an alternative approach to examining such issues.

Conclusion

The findings of this pilot study indicate that when low-distraction venues are provided for students with sensory defensiveness, they can have a positive effect on levels of concentration and their ability to participate in annual examinations. These findings support

Table 5

Invigilator Ratings of Venues within Main Test Centre

	Low-Distraction (Mode Scale 1-5)	Group (Mode Scale 1-5)	Individual (Mode Scale 1-5)
Physical Environment Rating (1=unacceptable; 5=excellent)	5	4	4
Level of Distractions Rating (1=large number of distractions; 5=no distractions)	4	4	4

the use of test setting accommodations such as a private/quiet room or smaller group venues as highlighted by Gregg (2009). This study also lends support to the modification of environments for students experiencing sensory defensiveness, by removing unnecessary barriers and making adaptations to environments such as lecture halls, restaurants, busy concourses, and libraries as advocated by Johnson and Irving (2008) and May-Benson and Koomar (2008). The transition to the college environment presents challenges for all students but especially to students with sensory defensiveness, who may experience difficulty functioning within these new environments. Although sensory defensiveness and sensory processing are linked to the individual, sensory integrative theory can provide therapists and other professionals with an alternative perspective on facilitating student engagement in their academic activities. In line with Dunn's (1999) model of sensory processing, this study does not propose an approach that seeks to change the student's threshold for dealing with sensory information but to create an environment in which the student with sensory defensiveness can function.

This pilot study was undertaken as a result of an identified need amongst students with disabilities who were accessing the Unilink Service. It highlights the need to recognise and assess sensory defensiveness in the student and use appropriate accommodations to help these students engage in their student role. It also highlights the need for advocacy on behalf of students with the college administration and to raise awareness of the functional limitations encountered by people experiencing sensory defensiveness. As a result of this study, the number of students who use the low distraction venues has increased by 190% from eight in the annual examinations in 2011 to 29 in 2012.

We have proposed one method of reasonably accommodating students who experience sensory defensiveness within the college environment. Future research should investigate the prevalence of sensory defensiveness both within specific groups of college students with ADHD, Asperger's Syndrome and DCD and also with the overall student population. Other possible research could focus upon the types of environments within colleges in which students with sensory defensiveness experience difficulty functioning, guiding the planning of college buildings as well as the development of other reasonable accommodations.

References

- Abernethy, H. (2010). The assessment and treatment of sensory defensiveness in adult mental health: A literature review. *British Journal of Occupational Therapy*, 73(5), 210-218.
- Blakemore, S. J. Tavassoli, T., Calo, S., Thomas, R. M. Catmir, C., Frith, U., & Haggard, P. (2006). Tactile sensitivity in Asperger syndrome. *Brain and Cognition*, 61, 5-13.
- Barnard-Brak, L., Sulak, T., Tate, A., & Lechtenberger, D. (2010). Measuring college students' attitudes toward requesting accommodations: A national multi-institutional study. *Assessment for Effective Intervention*, 35(3), 141-147.
- Brown, C., Cromwell, R. L., Filion, D., Dunn, W., & Tollefson, N. (2002). Sensory processing in schizophrenia: Missing and avoiding information. *Schizophrenia Research*, 55(1-2), 187-195.
- Brown, C., & Dunn, W. (2002) *Adult/adolescent sensory profile: User's manual*. San Antonio, TX: Psychological Corporation.
- Brown, C., & Nicholson, R. (2011). Sensory skills. In Brown, C & Stoffel, V. (Eds.) *Occupational therapy in mental health: A vision for participation* (pp.280-297). Philadelphia, PA: FA Davis.
- Dunn, W. (1999). *The sensory profile*. San Antonio, TX: Psychological Corp.
- Engel-Yeger, B., & Dunn, W. (2011) The relationship between sensory processing difficulties and anxiety level of healthy adults. *British Journal of Occupational Therapy*, 74(5), 210-216.
- Forsyth, K., & Kviz, F. (2006) Survey research design. In Kielhofner, G. (ed.). *Research in occupational therapy: Methods of inquiry for enhancement of practice* (pp.607-619). Philadelphia, PA: FA Davis.
- Gregg, N. (2009) *Adolescents and adults with learning disabilities and ADHD: Assessment and accommodation*. New York: Guilford Press.
- Gregg, N., & Nelson, J. M., (2010). Meta-analysis on the effectiveness of extra time as a test accommodation for transitioning adolescents with learning disabilities: More questions than answers. *Journal of Learning Disabilities*, 45(2), 128-138. doi:10.1177/0022219409355484
- Johnson, M. E., & Irving, R. (2008). Implications of sensory defensiveness in a college population. *Sensory Integration Quarterly / American Occupational Therapy Association*, 31(2), 1-3.

- Ketterlin-Geller, L. R., Alonzo, J., Braun-Monegan, J., & Tindal, G. (2007). Recommendations for accommodations, implications of (in) consistency. *Remedial and Special Education, 28*(4), 194-206.
- Kinnealey, M., Oliver, B., & Wilbarger, P. (1995) A phenomenological study of sensory defensiveness in adults. *American Journal of Occupational Therapy, 49*(5), 444-51
- Kinnealey, M., & Fuiek, M. (1999). The relationship between sensory defensiveness, anxiety, depression, and the perception of pain in adults. *Occupational Therapy International, 6*, 195-296.
- Lane, S. J., Reynolds, S., & Thacker, L. (2010) Sensory over-responsivity and ADHD: Differentiating using electrodermal responses, cortisol, and anxiety. *Frontiers in Integrative Neuroscience 4*, 1-11.
- May-Benson, T., & Koomar, J.A. (2008) AOTA's centennial vision and the sensory integration frame of reference. *Sensory Integration Special Interest Quarterly / American Occupational Therapy Association, 31*(1), 1-4.
- Miller, L. J., Anzalone, M. E., Lane, S. J., Cermak, S. A., Osten, E. T. (2007) Concept Evolution in Sensory Integration: A Proposed Nosology for Diagnosis. *American Journal of Occupational Therapy, 61*(2), 135-140.
- Nolan, C., & MacCobb, S. (2006). Uni-Link: A mental health service initiative for university students. *WFOT Bulletin, 54*, 53-59.
- Nolan, C., Quinn, S., & MacCobb, S. (2011). The use of mobile phone technology, in particular text messaging, as a means of maintaining communication and developing relationships with third level students in the provision of a mental health service. *Occupational Therapy in Mental Health, 27*(2), 2011, 103-125.
- Parush, S., Sohmer, H., Steinberg, A., Kaitz, M. (2007). Somatosensory function in boys with ADHD and tactile defensiveness. *Physiology & Behaviour, 90*, 553-558.
- Pfeiffer B. (2002). The impact of dysfunction in sensory integration on occupations in childhood through adulthood: A case study. *Sensory Integration Special Interest Section Quarterly, 25*(1), 1-2.
- Pfeiffer, B., & Kinnealey (2003) Treatment of sensory defensiveness in adults. *Occupational Therapy International, 10*(3), 175-184.
- Rieke, E. F., & Anderson, D. (2009) Adolescent/adult sensory profile and obsessive-compulsive disorder. *American Journal of Occupational Therapy, 63*(2), 138-145.
- Sireci, S., & Pitoniak, M. (2006). *Assessment accommodations. What have we learned from research?* Paper presented at workshop of Accommodating Students with Disabilities on State Assessment: What Works? Savannah, GA. Retrieved from www.ets.org/Media/Research/conf_accomm2006_sireci.ppt
- SurveyMonkeyTM. <http://www.surveymonkey.com/s/>
- Trinity College Disability Service (2011) *Report on Disability Service Exam Survey, February 2011* (unpublished) <http://www.tcd.ie/disability/projects/archived%20projects/Lowdistract.php>

About the Authors

Kieran Lewis received his B.Sc. degree in Occupational Therapy from Trinity College Dublin. He is currently working within the Unilink Service, part of the Disability Service in Trinity College, which is a practical support service for students who may be experiencing mental health difficulties and/or physical and sensory difficulties. He has completed modules one and two of the Advanced Practitioner Training Route in Sensory Integration offered by the Sensory Integration Network UK and Ireland. He is currently undertaking a M.Sc. by research in Occupational Therapy. His research interests include Sensory Processing Disorder in adults, recovery-orientated practice and self-management approaches. He can be reached by email at: klewis@tcd.ie

Dr. Clodagh Nolan qualified in the early 1980's with a Diploma in Occupational Therapy from the College of Occupational Therapists, London. Her Master's Degree and Ph.D. studies were in the area of community mental health and the development of a self-report measure for students with disabilities. She has taught at both undergraduate and postgraduate levels within the Discipline. She is currently an Assistant Professor with the Discipline of Occupational Therapy and Director of the Unilink Service at Trinity College, Dublin, Ireland. Her research interests include fatigue management, students and mental health, community engagement, attitudes to community mental health, and transitioning into and from college for students with disabilities. She can be reached by email at: nolancel@tcd.ie

Appendix A

Phase 1 - Questionnaire

Examination venue survey

1. Your chance to tell us all about exams

We are completing a review of examination venues. This is your opportunity to alert us to any issues you have experienced with quality of venue and / or invigilators.

*1. Which year are you in?

- ☐ JF
- ☐ SF
- ☐ JS
- ☐ SS
- ☐ PG

*2. Please indicate the disability category that applies to you. You may select more than one.

- ☐ ADHD
- ☐ AS
- ☐ Dyspraxia
- ☐ Medical
- ☐ Mental Health
- ☐ Sensory (hearing)
- ☐ Sensory (visual)
- ☐ Specific learning difficulty

2.

*1. Which of these exam accommodations have you been granted.

- ☐ Extra time
- ☐ Sticker
- ☐ Reader
- ☐ Scribe
- ☐ Computer
- ☐ Other

Other (please specify)

Appendix A

Phase 1 - Questionnaire

Examination venue survey

2. Which of these venues do you / have you used?

- ☐ Smaller group venue
- ☐ Individual venue
- ☐ None

3.

*1. Please describe your experience of the following venues:

	Excellent	Good (minor problems)	Fair (could be better)	Poor	Unacceptable
Arts Building	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Luce Hall	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GMB	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exam Hall	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Computer room	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please describe any difficulties you have had

Appendix A

Phase 1 - Questionnaire

Examination venue survey					
*2. Please describe your experiences of the following during exams:					
	Excellent	Good (minor problems)	Fair (could be better)	Poor	Unacceptable
Invigilator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fellow students (in room)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fellow students (outside)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Noise level (room)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Noise level (outside room)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lighting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Please describe any difficulties you have had					
<div style="border: 1px solid black; width: 100%; height: 100%;"></div>					
4. Thank you for your time, now tell us how you would prefer to be assessed.					
1. Which of these methods of alternative assessment would you prefer to use instead of exams? You may select more than one option.					
<input type="checkbox"/> Essay / assignment <input type="checkbox"/> Thesis / project <input type="checkbox"/> Oral / spoken examination <input type="checkbox"/> Multiple choice questions <input type="checkbox"/> Video submission <input type="checkbox"/> Group presentation / project <input type="checkbox"/> Portfolio					
Any other suggestion?					
<div style="border: 1px solid black; width: 100%; height: 100%;"></div>					

Appendix B

Phase 3 - Invigilator Questionnaire

Exam Venue Checklist

Name:	Date:	Time:
-------	-------	-------

Venue type		Room Numbers:
Arts Building (group)	<input type="checkbox"/>	
Arts Building (low distraction)	<input type="checkbox"/>	
Arts Building (individual)	<input type="checkbox"/>	
IT training room	<input type="checkbox"/>	
EEPC 1 &3 (Panoz)	<input type="checkbox"/>	

Number of students;	
➤ in venue at the official start time	
➤ arriving late	
➤ leaving early	
➤ at official end time	

Number of Invigilators;	
➤ at the start	
➤ at the end	

Appendix B

Phase 3 - Invigilator Questionnaire

General Questions			
	Yes	No	Comments
Did the exam start on time, if late by how much?	<input type="checkbox"/>	<input type="checkbox"/>	
Did the exam finish on time, if late by how much?	<input type="checkbox"/>	<input type="checkbox"/>	
Did lecturers attend the venue?	<input type="checkbox"/>	<input type="checkbox"/>	
Were the windows or doors open during the exam?	<input type="checkbox"/>	<input type="checkbox"/>	
Invigilator / Reader on time	<input type="checkbox"/>	<input type="checkbox"/>	
Stickers on all scripts as outlined?	<input type="checkbox"/>	<input type="checkbox"/>	
Correct exam papers in venue?	<input type="checkbox"/>	<input type="checkbox"/>	

Physical Environment

5=excellent, 4=very good, 3=fair, 2=poor, 1=unacceptable					
Overall	5	4	3	2	1

	Yes	No	Comment
Desks facing walls in LV venue	<input type="checkbox"/>	<input type="checkbox"/>	
Adequate space between desks	<input type="checkbox"/>	<input type="checkbox"/>	

Appendix B

Phase 3 - Invigilator Questionnaire

Unnecessary equipment / clutter (AV equip, boxes, chairs, tables) in the room	<input type="checkbox"/>	<input type="checkbox"/>	
Accessible to all student(s)	<input type="checkbox"/>	<input type="checkbox"/>	
Seating appropriate for student(s)	<input type="checkbox"/>	<input type="checkbox"/>	
Desk appropriate for student(s)	<input type="checkbox"/>	<input type="checkbox"/>	
Room Temperature suitable	<input type="checkbox"/>	<input type="checkbox"/>	
Lighting appropriate	<input type="checkbox"/>	<input type="checkbox"/>	

Distractions

5=none, 4=rarely , 3=occasionally, 2=often, 1=throughout					
Overall	5	4	3	2	1

Within Room	Yes	No	Comment
Other Students (noise, movement)	<input type="checkbox"/>	<input type="checkbox"/>	
Invigilator (noise, movement)	<input type="checkbox"/>	<input type="checkbox"/>	
Noise from AV equipment / lighting etc.	<input type="checkbox"/>	<input type="checkbox"/>	
Outside Room	Yes	No	Comment

Appendix B

Phase 3 - Invigilator Questionnaire

Outside Traffic	<input type="checkbox"/>	<input type="checkbox"/>	
From corridor outside (Staff, other students, nearby offices, maintenance, cleaning etc.)	<input type="checkbox"/>	<input type="checkbox"/>	
Other	<input type="checkbox"/>	<input type="checkbox"/>	

Appendix C

Phase 3 - Student Feedback Questionnaire

1. How did you find the setup of the room?
2. Would you prefer to have the desks facing against the wall or facing out into the room?
3. Was there adequate room between the desks?
4. Were there any distractions from within the room?
5. Were there any distractions from outside the room?
6. Did you use earplugs?

PRACTICE BRIEF:

Modeling Positive Behaviors for Postsecondary Students with Autism/Asperger's: The Use of "Television Coaching"

Jack Trammell
Randolph-Macon College

Abstract

Students on the Autism spectrum, including those with Asperger's, are attending postsecondary schools at record rates and bringing with them unique needs and challenges. Although students with this diagnosis qualify for and often use traditional academic accommodations such as testing in a separate room, they also commonly experience academic difficulties more specifically related to the social interaction/communication deficits associated with their disability. This practice brief reports on a modestly scaled attempt ($n = 5$) to use Television Coaching to help students become more successful in social interactions in postsecondary academic settings (specifically, classroom discussions and job interviews senior year). Utilizing predispositions toward visual media and imitation, which are characteristic of many students on the spectrum, the results suggest promise for similar techniques that can be readily adapted.

Keywords: Autism, Asperger's, television coaching

Problem

Over a period of two years, five students with Autism Spectrum Disorder (ASD) diagnoses voluntarily contacted the disability support services (DSS) office at a small liberal arts school seeking help with several communication challenges: classroom discussion activities that required uncomfortable levels or types of social engagement, direct interactions with professors, and interviews for graduate school or employment. In each case, the student had received feedback that strongly suggested his/her attempts were not judged by others as successful. All five students were already utilizing more common academic accommodations and agreed to attempt a new approach to solve the current challenge.

Method

During a structured interview based on individualized questions prepared by the DSS director in advance, each student generated with the DSS director a preliminary list of wanted and unwanted behaviors

associated with the communication activity they were having difficulty carrying out successfully. Examples included seeking out and accurately processing direct feedback from professors and/or interviewers. This list eventually became a rubric for informally assessing changes in behavior over time (see Tables 1 and 2). Such lists have proven useful to students on the spectrum, particularly if they have executive functioning challenges, since the list can provide hierarchy and an external priority (Adreon & Durocher, 2007; Azano & Tuckwiller, 2011). The list also became the starting point for identifying a series of television sitcoms to watch, which were readily accessible online or through the college cable system, where the students could study similar communication behaviors in an exaggerated format.

There is research to suggest that students on the spectrum favor visual media, in particular screen-based media, and that they often can be quite imitative of behavior they witness repetitively (Mazurek, Shattuck, Wagner, & Cooper, 2012; Shane & Albert, 2008). One recent study also shows that individuals with ASD tend

Table 1

Rubric for Jimmy

Unwanted Behaviors	Positive/Desired Behaviors
1. Appearance of disengagement	Body language of engagement
2. Aversion of gaze	Direct eye contact/focused gaze
3. Too much/not enough emotional response	Appropriate emotional response to content
4. Appearance of disrespect toward professor	Appropriate level of professorial respect
5. Disengagement from other students	Practical cues toward fellow students
6. Blurting out/interrupting	Watching interaction cues from professor

Table 2

Rubric for Sally

Unwanted Behaviors	Positive/Desired Behaviors
1. Smiling at inappropriate times	Smile with intention/restraint
2. Talking too fast	Speaking deliberately/thoughtfully
3. Blinking excessively	Breathing deeply and slowing down
4. Giving too much detail/negativity	Intentionality with detail/sharing the positive
5. Excessive nervousness	Focus on posture and slowing down
6. Forced or inappropriate laughter	Use laughter with caution

to watch television more, earlier, and prefer more adult programs than their peers (Chonchaiya, Nuntanarumit, & Pruksananonda, 2011). There is also evidence that individuals with ASD respond to interventions with strong visual elements and transparent structure that lends itself to easier transferability (Slavin, 2010).

All of television, and arguably drama in general, is an abstraction: time is compressed, expressions and gestures are exaggerated, moods fluctuate wildly, body language is abnormally emphasized, and the plot is manipulated to skip events and exchanges that are not germane to most viewers. In particular, television sitcoms intentionally manipulate these variables much more intensely than movies or longer dramas. Sitcoms, therefore, have the potential to be overt examples of communication skills or challenges that can be observed by individuals who can find it difficult to understand more nuanced social behavior in real life.

“Coaching” in this practice brief is defined as guided practice with frequent feedback and modeling of desired behaviors and skills. Coaching has been shown to be an effective strategy in preparing professionals to work with students with ASD (Radley, 2012; Wilson, Dykstra, Watson, Boyd, & Crais, 2012). Just as importantly, it is a direct form of intervention for individuals with ASD, sometimes referenced with similar terms that include “play” or “mock” experiences, which normally also include guided assistance and practice (Kasari, Huynh, & Gulsrud, 2011; Swarns, 2012). The use of “television coaching” is also consistent with strategies for helping students with ASD that combine unusual activities that play to ASD strengths, such as educational music therapy for social skills development (Baraba, 2012).

Each of the five students was already well aware of the general nature of such shows, but lacked a sophisticated grasp of the abstractions they involved. When they were asked to explain the use of exaggeration in sitcoms, they generally could not explain it well. Therefore, after looking at the initial lists of desired and undesired behaviors created collaboratively, the DSS director helped each student select a series of shows to watch for at least four episodes (e.g., *Seinfeld*, *Friends*, etc.). The shows were intentionally chosen for high degree of exaggeration. Students were specifically instructed to note which expressions, reactions, or body language exaggerations were the most noteworthy in their opinion, and where similar behaviors intersected with their own on the lists. They were in

essence doing an informal analysis of communication skills portrayed through caricature and exaggeration on television (Hewitt, 2011).

After the initial viewings, a brief dialogue occurred between the students and DSS where each student received specific feedback and recommendations for “exaggerating” or staging (planning to use) the classroom/interview behaviors that were more desirable on their lists. For example, smiles were recommended during introductions and when interviews digressed into personal topics. Conversely, smiles were to be avoided when serious topics like sexual harassment policy were discussed. Students were guided to seek more practice in meaningful settings such as the academic center for mock interviews, classrooms where routine discussion was an expectation, or practice interviews at the career center. At the same time, students were assigned to watch four more episodes and continue to observe and generalize behaviors to their own situation. As the process evolved, students were asked to take notes. Given the utility that strategy proved to have, future replications should require that all participants do so from the start.

By the third meeting, all five students had made significant progress in recognizing behaviors in the abstract that sent concrete messages to an audience in real time. One student, who had been told she smiled too much during an interview, reported consciously making decisions in the next interview about when to smile. At no time was there any pressure placed on students to behave in any way that was uncomfortable to them. Their general comfort level with experimentation and “staging” increased with each session, however, as observed by the DSS director and often confirmed by their personal statements during debriefings.

Jimmy (all student names are pseudonyms) was a sophomore transfer student who came to the school expecting that the smaller environment would help him. In reality, he found the higher degree of social interaction quite stressful. He reported that, after going through this project, he was as afraid to pretend he was looking at the professor even though he was actually focused on the wall behind him. It did not matter that he was not actually looking at the professor; it mattered that the professor perceived him as being engaged. In this case, Jimmy felt that he had learned how to engage in a behavior that satisfied a need to communicate in the classroom by observing how television characters exaggerated their use of eye contact while talking to another character.

He reported more confidence in looking around in the classroom and observing what others were doing, rather than his initial habit of looking down.

Sally was a senior who was very stressed about interviews and applications for graduate school. Her interviews became increasingly polished and successful as reported by others and based on her own perception. She reported, as mentioned earlier, that her smiling skills improved; people reacted to her smile with a smile themselves. Prior to this training, Sally tended to smile at inappropriate moments in the interview, such as when the topic of office behavior was being discussed. This initially heightened the anxiety of the interviewer (who called DSS) and perplexed Sally. Sally, an extremely intelligent young woman, studied her shows to the point where she could identify every example of a character's smile in a particular episode and the events with which the smiles were associated. Ultimately, she was accepted into a graduate program after a successful interview.

Conclusion

Using Television Coaching on a small scale appears to provide another option in addressing the complex social skills deficits amongst individuals with ASD in the postsecondary setting. This approach appears to take advantage of students with ASD's general preference for visual media and positive responses to coaching and repetition. It is not a replacement for academic accommodations but may hold the promise of helping students learn the social behaviors needed to navigate typical social situations in college with less anxiety by providing more immediate feedback than they may receive in other settings.

The primary DSS resources required for this project were time and a willingness to dialog with students. If the students were willing to invest their own time in the television watching activities, as well as in meeting face-to-face, the results were uniformly perceived by DSS and students as positive. Implementing this practice has already led to refinements, such as recognizing the value of having students take notes while watching. This new service does not replace traditional therapies or technically qualify as an accommodation. Nonetheless, its value to DSS offices is significant in that social skills deficits can impact students with ASD's academic experience in myriad ways, ranging from one-on-one interaction with professors to completing

labs or other group projects where close teamwork and communication are necessary.

Larger replications or similar projects may lead to the possibilities of professional training being offered to DSS. Research about this practice could enrich the literature with more information about the efficacy of such interventions. While the limitations of this investigation are primarily related to its small scale and experimental nature, the informal results are positive and indicative of further possibilities.

References

- Adreon, D., & Durocher, J. S. (2007). Evaluating the college transition needs of individuals with high-functioning Autism Spectrum Disorders. *Intervention in School and Clinic, 42*(5), 271-279.
- Azano, A., & Tuckwiller, E. D. (2011). GPS for the English classroom: Understanding executive dysfunction in secondary students with Autism. *Teaching Exceptional Children, 43*(6), 38-43.
- Baraba, S. (2012, October 16). Music therapy has education beat. *St. Charles County Suburban Journal*.
- Chonchaiya, W., Nuntnarumit, P., & Pruksananonda, C. (2011). Comparison of television viewing between children with autism spectrum disorder and controls. *Acta Paediatrica, 100*(7), 1033-1037.
- Hewitt, L. (2011). Perspectives on support needs of individuals with Autism Spectrum Disorders: Transition to college. *Topics in Language Disorders, 31*(3), 273-285.
- Kasari, C., Huynh, L., & Gulsrud, A. C. (2011). Play interventions for children with Autism. In S. W. Russ & L. N. Niec (Eds.), *Play in clinical practice: Evidence-based approaches* (pp. 201-217). New York: Guilford Press.
- Mazurek, M. O., Shattuck, P. T., Wagner, M., & Cooper, B. P. (2012). Prevalence and correlates of screen-based media use among youths with Autism Spectrum Disorders. *Journal of Autism & Developmental Disorders, 42*, 1757-1767.
- Radley, K. C. (2012). Superheroes social skills for children with Autism Spectrum Disorders: Evaluating the efficacy of a parent-training and coaching program for increasing social skill use in children with Autism. In *Dissertation Abstracts International: Section A: Humanities and Social Sciences (Vol. 73(3-A))*: University of Utah.

- Shane, H. C., & Albert, P. D. (2008). Electronic screen media for persons with Autism Spectrum Disorders: Results of a survey. *Journal of Autism & Developmental Disorders*, 38, 1499-1508.
- Slavin, J. C. (2010). Effects of a visual learning social skills intervention on youths with high-functioning Autism Spectrum Disorders. In *Dissertation Abstracts International: Section B: The Sciences and Engineering (Vol. 70(7-B))*: Hofstra University.
- Swarns, R. L. (2012, October 28). Testing Autism and air travel. *New York Times*; nytimes.com. Retrieved from <http://travel.nytimes.com/2012/10/28/travel>
- Wilson, K. P., Dykstra, J. R., Watson, L. R., Boyd, B. A., & Crais, E. R. (2012). Coaching in early education classrooms serving children with Autism: A pilot study. *Early Childhood Education Journal*, 40(2), 97-105.

About the Author

Jack Trammell received his BA degree in political science from Grove City College and following an M. Ed. was awarded a Ph.D. in Education, Research and Evaluation, from Virginia Commonwealth University. His experience includes working as a special education teacher in the Virginia public schools. He is currently Director of Disability Support Services and Assistant Professor in the Sociology Department teaching disability studies at Randolph-Macon College. His research interests include disability stigma, transition, and the social mechanisms related to disability discrimination. He can be reached by email at: jtrammel@rmc.edu

BOOK REVIEW

Jack Trammell
Randolph-Macon College

Nolting, P. D. (2012). *Mathematics and disabilities handbook: A guide for students with LD, ADHD, TBI and Wounded Warriors* (eBook). Bradenton, FL: Academic Success Press, 416 pp.

Paul Nolting's recently published *Mathematics and Disabilities Handbook* is quite unusual – it examines various processing disabilities, compares them to specific math skills, and then offers very explicit strategies and ideas for classroom accommodations. In a day and age where it is increasingly difficult to distinguish one student from another simply based on a label (and the 2008 ADA renders the label less important), efforts like this that target specific problems with specific solutions are worth their weight in gold. Moreover, Nolting has a gift for combining the practicality of the classroom teacher with the wisdom and theoretical connections of an academic researcher.

Nolting displays a depth of knowledge in the field that is useful and often missing from many disability support publications and programs. To cite an example, his linear history of disability accommodation from 1976 to 2009 in Chapter 1 is concise, coherent, and very little known in broader educational circles. Understanding the history of disability accommodation is critical to developing a comprehensive methodology and rationale for decision-making, yet many disability support services (DSS or DSO) and other service providers, as well as researchers, pay less attention than they should to the relatively recent but historically important context.

Nolting's chapters are rich with examples that are easily generalizable and build on his own experience, as well as reference important research findings. In Chapter 2, for example, the author suggests a method for identifying undiagnosed students with learning disabilities that distinguishes them from struggling developmental students. These kinds of anecdotal and practice-based strategies are eminently useful to DSS/DSO providers. Moreover, Chapter 2 also includes extensive information on interpreting test scores. While this information may be a review for DSS veterans, it is still organized in such a fashion as to be useful to almost anyone in the field.

Nolting often outlines very practical and interesting interventions. In the chapter that includes a section on helping Wounded Warriors (another unique aspect of the book), he suggests reasons why returning vets may struggle, particularly in math. But he also suggests a range of interventions, ranging from universal design principles in instruction to the use of innovative math software. He also tackles the potentially controversial issue of math course substitution with care and common sense.

If there is any criticism of this book, it could be that occasionally the language lapses into the informal. It is likely, however, that this choice was intentional if the author intended the book to be completely accessible to a working audience in DSS/DSO circles. It is also a book with an ambitious scope. On the other hand, he spends considerable time organizing global structures to help frame the current understanding of learning disabilities and how they impact math learning. The usefulness (and difficulty of doing so in a meaningful way) cannot be overstated.

This book does a notable job of making research and practice eminently accessible to a general DSS/DSO audience in a specialization (math learning/instruction) that is more cogent than ever.

About the Author

Jack Trammell received his BA degree in political science from Grove City College and following an M. Ed. was awarded a Ph.D. in Education, Research and Evaluation, from Virginia Commonwealth University. His experience includes working as a special education teacher in the Virginia public schools. He is currently Director of Disability Support Services and Assistant Professor in the Sociology Department teaching disability studies at Randolph-Macon College. His research interests include disability stigma, transition, and the social mechanisms related to disability discrimination. He can be reached by email at: jtrammel@rmc.edu

Journal of Postsecondary Education and Disability

Author Guidelines

The *Journal of Postsecondary Education and Disability* welcomes submissions of innovative and scholarly manuscripts relevant to the issues and practices of educating students with disabilities in postsecondary educational programs. Manuscripts must be submitted electronically via email to jped@ahead.org

Guidelines for authors:

Content

Manuscripts should demonstrate scholarly excellence in at least one of the following categories:

- Research: Reports original quantitative, qualitative, or mixed-method research
- Integration: Integrates research of others in a meaningful way; compares or contrasts theories; critiques results; and/or provides context for future exploration.
- Innovation: Proposes innovation of theory, approach, or process of service delivery based on reviews of the literature and research
- Policy Analysis: Provides analysis, critique and implications of public policy, statutes, regulation, and litigation.

Format

All manuscripts must be prepared according to APA format as described in *The Publication Manual* (6th ed.), American Psychological Association, 2010. For responses to frequently asked questions about APA style, consult the APA web site at <http://www.apastyle.org/faqs.html>

- Manuscript length typically ranges between 25 and 35 pages including figures, tables, and references. Exceptions may be made depending upon topic and content.
- Include 3-5 keywords.
- Write sentences using active voice.
- Authors should use terminology that emphasizes the individual first and the disability second (see pages 71-76 of the APA Manual). Authors should also avoid the use of sexist language and the generic masculine pronoun.
- Manuscripts should have a title page that provides the names and affiliations of all authors and the address of the principal author.
- Include an abstract that does not exceed 250 words. Abstracts must be double spaced on a separate page of the manuscript, between the cover page and the first page of the body of the manuscript. List 3-5 key terms immediately beneath the text of the abstract.
- Provide a cover letter asking that the manuscript be reviewed for publication consideration and that it has not been published or is being reviewed for publication elsewhere.
- Tables and figures must conform to APA standards, and must be in black and white only. All tables and figures should be vertical and fit on the page, no landscape format.

Manuscripts must be submitted as email attachments in Microsoft Word format to: jped@ahead.org

Upon acceptance for publication

For manuscripts that are accepted for publication, the following items must be provided to the Executive Editor:

- An electronic copy of the final manuscript as an email attachment.
- A 40-50 word bibliographic description for each author.
- A signed and completed Copyright Transfer form.

Manuscript submissions by AHEAD members are especially welcome. The JPED reserves the right to edit all material for space and style. Authors will be notified of changes.

Practice Brief Manuscripts

JPED invites practitioners and/or researchers to submit Practice Briefs that can inform readers of innovative practices that could, in time, become the basis of an empirical study. Practice Briefs will describe new or expanded programs, services, or practices that support postsecondary students with disabilities.

The overall length of a Practice Brief will be limited to 12 double-spaced pages, which includes separate title page, abstract, and references pages. Tables and/or figures may be submitted, too, above and beyond the 12 page limit. Practice Briefs should be organized using the headers/sections listed below. For a fuller description of each header/section, please refer to the complete Practice Brief Author Guidelines at <http://www.ahead.org/publications/jped-guide>.

- Title Page
- Abstract
- Summary of Relevant Literature
- Depiction of the Problem
- Participant Demographics and Institutional Partners/Resources
- Description of Practice
- Evaluation of observed outcomes
- Implications and Portability
- References

If you have any questions, contact the JPED Editor David Parker at 317-730-0463 or email: editor@ahead.org

Submit all manuscripts (research and practice briefs) to JPED at this email address: jped@ahead.org. Manuscripts must be submitted as email attachments in Microsoft Word format. Include a brief cover note addressed to Dr. David Parker, Executive Editor of JPED. Please confirm that the manuscript has not been published elsewhere and that it is not being reviewed at this time by another publication source. The abstract should be included in the manuscript and not attached separately. Finally, please ensure that all tables or figures are included as well. These can be included in the manuscript or attached as separate documents. You will receive an email reply from Richard Allegra, Managing Editor of JPED, to confirm receipt of your submission.