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A STUDY OF THE IMPACT OF A UNIVERSITY'S PROGRAM FOR INTELLECTUAL DISABILITIES ON UNDERGRADUATE STUDENTS' PERCEPTIONS AND ATTITUDES

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A STUDY OF THE IMPACT OF A UNIVERSITY'S PROGRAM
FOR INTELLECTUAL DISABILITIES ON
UNDERGRADUATE STUDENTS' PERCEPTIONS AND ATTITUDES

By

TYANNE NICOLE BAILEY

A doctoral dissertation submitted to the
College of Education
in partial fulfillment of the requirements
for the degree Doctor of Education
in Curriculum and Instruction

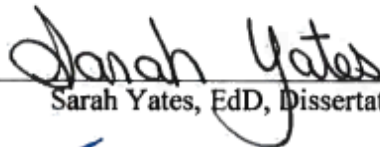
Southeastern University
October, 2020

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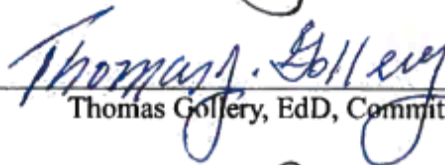
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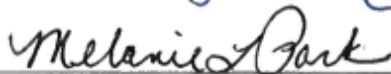
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Dr. James Anderson, PhD, Dean, College of Education

DEDICATION

When I finished my master's degree, I was quite certain that I would never be attending school again. I had achieved all of the teaching licensure I wanted and loved my job teaching special education in the public schools. My husband, Phil, and I began our family, and life was going well. Just when I thought we had life figured out, God showed another plan. I have to admit, I tried to convince Him that moving to higher education "wasn't for me," but more than anything that was because the thought of going "back to school" for my doctorate sounded terrifying and exhausting. I could not have made it to this point if it wasn't for God's plan and His continued faithfulness. I know with complete confidence that I am right where God wants me to be and I am so thankful for my relationship with my Heavenly Father.

I would like to dedicate this dissertation to my family. Phil, without your support, this would not have been possible. From the first day I got on that plane, you said to "do whatever you need to do," and you haven't wavered in that statement since. For the last several years, you have more than picked up the slack around our home and with our girls and for this I am completely grateful. Thank you for loving me unconditionally through the frustrations, exhaustion, late nights, long days, and many milestone celebrations throughout this process. I love you.

To my girls, Haiden Nicole, Harper Jo, and Hadley Jaymes. The last four years have been hard. They have been hard because there were times I was dragging my assignments, papers, and research to ballgames, school events, and activities, not wanting to miss anything

you were doing, but all the while trying to do too many things at the same time. I have always been there physically, but I realize there were times that I probably wasn't the most present in the moment. Thank you, girls, for being my biggest fans through it all. You have always been cheering for me along the way and have been my reason for continuing to push through when I wondered why I was pursuing this degree. Your unconditional love and support got me through in ways I cannot even describe. Thank you. I love each of you very much.

To my parents, Mark and Carolyn Malfait. Thank you for your unconditional support. You always made college a non-negotiable and for this I am so thankful. The work ethic you raised me with is the reason this accomplishment was possible. Without your love and support throughout the years, I would not have completed this journey. Thank you from the bottom of my heart.

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Dr. Melanie Park, where do I start? Thank you for agreeing to take on the task of being on this journey with me. God knew what he was doing when he brought us together at just the time He did- the right time for sure! Thank you for always being encouraging, holding me accountable, and keeping my perspective and priorities clear. There have been many times that

you have had to redirect me and for this I could not be more grateful. Thank you. Thank you for always reminding me that we are daughters of a true king and need to wear our crowns proudly!

To the graduate writing support of Southeastern University, thank you. I did not realize how much your editing would impact my writing, but I am so thankful! Your patience is immeasurable. Thank you for helping me through this writing journey.

Southeastern University Doctoral Program, when I started this journey, I had no idea what I was getting myself into. I had no idea the amount of growth that would happen in both my personal and professional life because of this program and experience. I remember flying to Florida from Indiana that first summer with the intentions of starting this program as a “part-time” student; however, by the end of the first week, I had already switched to “full-time,” made arrangements to stay for an additional week for a second class, and worked through the weekend to get a month’s worth of homework done before Monday’s class. When I was told it would be tough to be ready for the additional class, but I was able to complete everything and was ready for Monday, I knew this journey was possible...but I never imagined how rewarding it would be along the way! Thank you SEU!

Finally, to my SEU cohort E family, Theresa, Andi, and Rusty, I can honestly say this would not have been possible without each of you. Each of you played an important part of my journey, whether it was laughing, crying, or celebrating, you were each there for me for every step of this process. I could not thank you enough and I know without a doubt that I would not have been able to do this without you. Thank you is hardly enough.

Abstract

Opportunities for individuals with exceptional needs to participate in inclusive environments have increased in recent years due to the implementation of various laws. Throughout the history of education, individuals with exceptional needs were prevented from attending higher education institutions; however, the Higher Education Opportunity Act (HEOA) of 2008 provided opportunities for individuals with intellectual disabilities to attend higher education institutions. The purpose of this study was to evaluate how a university's program to assist students with intellectual disabilities successfully transition from high school to adulthood impacted undergraduate students' perceptions and comfort level of working with individuals with intellectual disabilities. This quantitative study was conducted at a small, private, Midwestern university and was comprised of 91 participants having contact with the university's program designed to assist students with intellectual disabilities. The study's research instrument was researcher-created and measured undergraduates' general attitude toward individuals with intellectual disabilities and undergraduates' perception of personal effectiveness in addressing the needs of students with intellectual disabilities. Although studies have shown that postsecondary higher education programs for individuals with intellectual disabilities are beneficial for those with intellectual disabilities, the findings from this study indicate these programs are also beneficial to individuals without intellectual disabilities that are attending the same university and have contact with the program. Universities should be encouraged to pursue offering postsecondary programs for individuals with intellectual disabilities based on the positive impact the program can have on the perceptions and attitudes of students without intellectual disabilities toward individuals with intellectual disabilities.

Keywords: intellectual disabilities, postsecondary programs, attitudes, perceptions

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I. INTRODUCTION

This dissertation was a quantitative study that evaluated how a university's program to assist students with intellectual disabilities impacted undergraduate students' perception of individuals with intellectual disabilities and undergraduate students' personal comfort level of working with individuals with intellectual disabilities enrolled on a college campus. The university's program was created six years ago to assist individuals with intellectual disabilities make the transition from high school to adulthood. The university's program for individuals with intellectual disabilities focused on education, employment, and independent living skills. The first chapter of the dissertation presents the background of the study, describes the theoretical framework that drove the study, explains the significance of the study, and gives an overview of the methodology.

Background of the Study

Opportunities for individuals with exceptional needs to actively participate in integrated or inclusive environments have increased in recent years due to the implementation of various laws. The Americans with Disabilities Act of 1990 (ADA, 1990) required organizations to provide reasonable accommodations to individuals with exceptional needs to provide equal access to learning and work environments. Going a step further in education, the implementation of the Individuals with Disabilities Education Improvement Act of 2004 (IDEA, 2004) required secondary education programs to prepare individuals with exceptional needs for postsecondary

transition to independent living, education, and employment opportunities. The implementation of required transition plans enabled teachers, families, and individuals with exceptional needs to plan for success after high school based on the goals and desires of the individual and the family. Throughout the history of education, individuals with exceptional needs were prevented from attending higher education institutions; however, the Higher Education Opportunity Act of 2008 (HEOA, 2008) provided opportunities for individuals with intellectual disabilities to attend higher education institutions. Because of the combination of these laws over time, opportunities for individuals with exceptional needs to participate in postsecondary higher education programs have increased nationally. Postsecondary higher education programs for the exceptional needs population exist across the United States and are typically considered certificate or non-degree seeking programs held on a college campus.

Participation in higher education impacts postsecondary outcomes for individuals with exceptional needs. Butler, Sheppard-Jones, Whaley, Harrison, and Osness (2016) completed a study specifically addressing the areas of community participation, relationships, choice-making, employment, respect and rights, and health and wellness. The results of the study indicated that individuals with intellectual disabilities were positively impacted by their experiences of participating in higher education opportunities in most areas assessed. The exception was the feelings of loneliness being similar between both those individuals who were participating in higher education and those individuals who were not experiencing postsecondary education options.

Prohn, Kelley, and Westling (2018) conducted a study to assess whether changes occurred in the level of independence of participants—individuals with intellectual disabilities—who participated in a postsecondary higher education program on a college campus. The study took

place over one year. Results indicated that the participants demonstrated greater independence after one year of participation in higher education and required less daily support. Based on the results of the study, the researchers noted that changes in independence might be due to support from the college campus community during the year of the study; however, the study was limited to the experiences of only six participants. In response to the research results, the researchers made the following statement:

We recognize that support provided by the college community was critical for creating an inclusive postsecondary education experience- one that contributed to increased self-sufficiency for students with ID [intellectual disabilities]. Developing similar support structures outside the college gates, though challenging, is a worthy pursuit for those who have accessed college and for many more young adults unable to access such an opportunity. (Prohn et al., 2018, p. 132)

The participation of individuals with exceptional needs in higher education may also impact postsecondary outcomes for individuals without exceptional needs. Kropp and Wolfe conducted a study in 2018 to address the question of whether direct contact with individuals with developmental disabilities positively altered college students' attitudes toward people with developmental disabilities. The participants of the study were 19 undergraduate students at a university in the Southeast region of the United States. Participants applied to and were accepted to participate as counselors or activity facilitators at a two-week camp for individuals with intellectual disabilities. The disabilities and ages of the campers varied. Campers ranged in age from 20 to 54 years old. Half of the study's participants lived in cabins with the campers, while the other participants lived in staff cabins but were assigned to specific groups of campers for various activities. Each participant completed The Multidimensional Attitude Scale Toward

Persons with Disabilities (Findler, Vilchinsky, & Werner, 2007) and a demographic and open-ended questionnaire created by the researcher before and after their camp experience. The findings from Findler et al. (2007) suggested that direct contact with individuals with developmental disabilities positively altered the perceptions of college students' attitudes toward individuals with developmental disabilities. Kropp and Wolfe (2018) identified two limitations to the study: a small sample size of 19 and the participants being a self-selected group, who were primarily female.

As postsecondary higher education programs become more accessible to individuals with exceptional needs, recognizing the attitudes of college faculty, staff, and students toward these programs and the inclusion of individuals with exceptional needs on campus may play significant roles in the success of the programs. Gibbons, Cihak, Mynatt, and Wilhoit (2015) surveyed 152 faculty members and 499 students at a large Southeastern university to collect data about participants' beliefs regarding postsecondary education for students with exceptionalities. Overall, the respondents' attitudes toward individuals with exceptional needs participating in postsecondary higher education were generally positive. One-fifth of the participants surveyed were unsure whether their campus provided postsecondary options for individuals with exceptional needs. Responses regarding the impact that the students with exceptional needs would have on the campus community differed among the participants. The student participants generally agreed that individuals with exceptional needs should be allowed to participate in all campus activities. Participants also held the belief that having individuals with exceptional needs on campus would help others learn how to better interact with members of the exceptional needs population. The faculty participants posed concerns regarding the effect that students with exceptional needs had on other college students.

Problem Statement

University programs to assist students with intellectual disabilities make a transition into adulthood have been implemented in just the last twenty years. The impact of programs on undergraduate students' perception of individuals with intellectual disabilities and undergraduate students' personal comfort level of working with individuals with intellectual disabilities enrolled on a college campus has not been fully explored.

Purpose Statement

The purpose of this study was to evaluate how a university's program to assist students with intellectual disabilities successfully transition from high school to adulthood impacted undergraduate students' perceptions of individuals with intellectual disabilities and undergraduate students' personal comfort level of working with individuals with intellectual disabilities enrolled on a college campus.

Theoretical Foundation

This study was based on the contact theory framework. According to McKay (2018), in 1954, Gordon Allport was the first to suggest that relationships between members of the majority and minority groups may improve over time when individuals engage in social contact with each other.

This theory has been used to explain a great deal about human relations, particularly in terms of prejudice and differences. Allport theorized that as people come into contact with others different from themselves, their prejudiced ideas would diminish as they come to understand the other person. (McKay, 2018, p. 21)

Li and Wang (2013) studied the effect of exposure to the Special Olympic Games on volunteers' attitudes towards the inclusion of individuals with exceptional needs. Study

participants were college students experiencing exposure to individuals with exceptional needs by volunteering at the Special Olympic Games. Li and Wang (2013) concluded that attitudes of volunteers toward individuals with exceptional needs could be enhanced through one-week volunteering for the Special Olympic Games.

Significance of the Study

Over the past several years, research has been conducted to evaluate how university programs for individuals with special needs college students have impacted the postsecondary lives of individuals with intellectual disabilities. The impact of those programs and opportunities on individuals with intellectual disabilities has resulted in positive changes in postsecondary outcomes for individuals with intellectual disabilities. With the support of the Individuals with Disabilities Education Improvement Act of 2004, researchers identified positive growth in areas of independent living, education, and employment. The Higher Education Opportunity Act of 2008 encouraged individuals with intellectual disabilities to continue growing in the areas of independent living, education, and employment through participation in higher education settings. The benefits for individuals with intellectual disabilities attending a postsecondary program in higher education are evident. Still, little research exists regarding how these programs may impact undergraduate students without intellectual disabilities on college campuses. Undergraduate students without intellectual disabilities may be a vital part of the success of university programs for special needs college students. Still, this study evaluated how a university's program to assist special needs college students impacted undergraduate students' perceptions and attitudes toward individuals with intellectual disabilities enrolled on a college campus. This study aimed to provide valuable information for university programs that assist

special needs college students. The study aimed to identify the existence of any benefit to typical peers enrolled on the same college campus as individuals with intellectual disabilities

Overview of Methodology

This study was considered a non-experimental research design. The study's intervention variable was university student participant involvement in a peer mentor program or organized campus activities or both a peer mentor program and organized campus activities with peer students identified as individuals with intellectual disabilities.

The study's research instrument was a researcher-created instrument measuring undergraduates' general attitude toward individuals with intellectual disabilities and measuring undergraduates' perception of personal effectiveness in addressing the needs of students with intellectual disabilities.

An a priori content validity was used in the instrument validation process. A pilot survey was conducted using 30 study participants for instrument validation purposes. Study participant responses to the study's research instrument in the pilot version of the instrument were analyzed using Cronbach's alpha (α) statistical technique for validation purposes before the actual administration of the instrument to the entire study participant sample.

Study participants were individuals, 18 years of age or older, who had contact with a university's program to assist students with intellectual disabilities during their undergraduate college years either through a peer mentor program or organized campus activities or both a peer mentor program and organized campus activities. All university undergraduate students were invited to participate if they met the stated qualifications. Undergraduate students were notified of the opportunity to participate through a campus-wide announcement posted in a daily digital newsletter distributed via email to all enrolled undergraduate students, which included a link to a

survey. Participants completed a survey via an online format using the link provided. Participant names or information that would identify individual participation was not collected. Participants completed the survey (Appendix A) with answers reflecting their experiences with a university's program to assist students with intellectual disabilities.

An a priori power analysis using G*Power was utilized to assess prospective study sample size needed to detect an effect for the intervention variable. If the treatment effect is large ($d = 0.80$), a sample of 12 will be sufficient. For a medium treatment effect ($d = 0.50$), a sample of 27 will suffice, and if the magnitude of treatment effect in the study is small ($d = 0.20$). The study's anticipated sample size of 60 will be more than sufficient to detect significance of finding with both a medium and large treatment effect. If the effect of the treatment is as low as $d = 0.31$, the study's sample will be sufficient to detect a significant finding.

Research Questions

In order to address the stated research problem, the following research questions were posed:

1. To what degree did study participants' general attitude toward individuals with intellectual disabilities change after participating in a university's program to assist special needs college students?
2. To what degree did study participants' overall perception of personal effectiveness in addressing the needs of individuals with intellectual disabilities change after participating in a university's program to assist special needs college students?
3. In which area (a more positive attitude toward students with intellectual disabilities, acceptance of individuals with intellectual disabilities, motivation to engage with

students with intellectual disabilities, perceptions of the capabilities of students with intellectual disabilities, or perceptions of the ability of students with intellectual disabilities to participate in typical activities of community life) did study participants manifest the greatest degree of perceived change in attitude after participating in a university's program to assist special needs college students?

Research Hypotheses

When addressing the stated research problem, the following research hypotheses were considered:

1. To what degree did study participants' general attitude toward individuals with intellectual disabilities change after participating in a university's program to assist special needs college students?

H₀: There will be no statistically significant degree of study participant attitude change toward individuals with intellectual disabilities after participating in a university's program to assist special needs college students.

2. To what degree did study participants' overall perception of effectiveness in addressing the needs of individuals with intellectual disabilities change after participating in a university's program to assist special needs college students?

H₀: There will be no statistically significant degree in change of study participants' overall perception of effectiveness in addressing the needs of individuals with intellectual disabilities after participating in a university's program to assist special needs college students.

3. In which area (a more positive attitude toward students with intellectual disabilities, acceptance of individuals with intellectual disabilities, motivation to engage with

students with intellectual disabilities, perceptions of the capabilities of students with intellectual disabilities, or perceptions of the ability of students with intellectual disabilities to participate in typical activities of community life) did study participants manifest the greatest degree of perceived change in attitude after participating in a university's program to assist special needs college students?

H_0 : Study participant motivation to engage with individuals with intellectual disabilities will manifest the greatest degree of perceived change after participating in a university's program to assist special needs college students.

Overview of Analyses

Preliminary Analysis

Prior to the analysis of research questions posed in the study, preliminary analyses were conducted. Specifically, the analyses that were conducted included missing data, internal consistency (reliability) of participant response, and essential demographic information.

Missing data were analyzed using descriptive and inferential statistical techniques. Specifically, frequency counts (n) and percentages (%) were utilized for illustrative purposes. The randomness of missing data was assessed using Little's MCAR test statistic. An *MCAR* value of $p > .05$ was considered indicative of sufficient randomness of missing data.

Internal reliability of participant response to the survey instrument was assessed using Cronbach's alpha (α). The statistical significance of α was evaluated through the application of an *F test*. *F* values of $p < .05$ are considered statistically significant.

Essential demographic information was analyzed using primarily descriptive statistical techniques. Specifically, frequency counts (n) and percentages (%) were utilized for illustrative purposes.

Data Analysis by Research Questions

The study's three proposed research questions were addressed broadly using a variety of descriptive and inferential statistical techniques. Frequency counts (n), measures of central tendency (mean scores), and variability (standard deviation) represented the primary descriptive statistical techniques used in the three research questions. In all three research questions, the t -test of independent means represented the primary inferential technique used.

The alpha or probability level of $p < .05$ represented the threshold for statistical significance of findings. Cohen's d statistical technique was used to assess the magnitude of effect or effect size in each of the three research questions. Cohen's conventions were applied to all effect size values for qualitative interpretive purposes.

Limitations

This study was expected to provide undergraduate students' perceptions of individuals with intellectual disabilities enrolled on a college campus; however, there were some limitations. One limitation was that the data gathered from participants surveyed were based on their perceptions. Measuring the perceptions of only participants working with a small Midwestern university's program to assist special needs college students means that the results may not be an absolute representation of all postsecondary programs and campuses from colleges and universities across the United States.

Summary

Overall, the implementation of several laws has provided opportunities for individuals with intellectual disabilities to actively participate in a variety of inclusive environments, including postsecondary higher education programs. Researchers have conducted studies regarding how these opportunities have impacted individuals with intellectual disabilities;

however, little research has studied how contact with a university's program to assist special needs college students impacts undergraduate students' perception of individuals with intellectual disabilities enrolled on a college campus or undergraduates' personal comfort level in working with special needs students. Chapter two will cover the literature surrounding previous studies, as well as continue the discussion regarding dimensions identified as essential for success, such as communication, social/emotional functioning, adaptive behavior, academic functioning, and life/community skills.

II. REVIEW OF LITERATURE

The purpose of this study was to evaluate how a university's program to assist students with intellectual disabilities successfully transition from high school to adulthood impacts undergraduate students' perceptions of individuals with intellectual disabilities and undergraduate students' personal comfort level of working with individuals with intellectual disabilities enrolled on a college campus.

History

Opportunities for individuals with exceptional needs to actively participate in integrated or inclusive environments have increased in recent years due to the implementation of various laws. The Americans with Disabilities Act of 1990 (ADA, 1990) required organizations to provide reasonable accommodations to individuals with exceptional needs to provide equal access to learning and work environments. Going a step further in education, the implementation of the Individuals with Disabilities Education Improvement Act of 2004 (IDEA, 2004) required secondary education programs to prepare individuals with exceptional needs for postsecondary transition to independent living, education, and employment opportunities. The implementation of required transition plans enabled teachers, families, and individuals with exceptional needs to plan for success after high school based on the goals and desires of the individual and the family. Throughout the history of education, individuals with exceptional needs were prevented from attending higher education institutions; however, the Higher Education Opportunity Act of 2008

(HEOA, 2008) provided opportunities for individuals with intellectual disabilities to attend higher education institutions. Because of the combination of these laws have increased over time nationally, opportunities for individuals with exceptional needs to participate in postsecondary higher education programs have increased. Postsecondary higher education programs for the exceptional needs population exist across the United States and are typically considered certificate or non-degree seeking programs held on a college campus.

Acceptance of Postsecondary Programs for Individuals with Intellectual Disabilities

The participation of individuals with exceptional needs in higher education may impact the acceptance of programs for individuals with intellectual disabilities taking place on university campuses. A study by O'Connor, Kubiak, Espiner, and O'Brien (2012) was designed to explore the attitudes of faculty members toward individuals with intellectual disabilities auditing their courses and the concept of postsecondary programs for individuals with intellectual disabilities at the undergraduate level. A qualitative study was conducted to explore faculty views about not only teaching, but also to explore faculty views about making accommodations for students with disabilities. Participants included 11 university faculty members that agreed to allow individuals with intellectual disabilities to audit their course(s). These courses included English, Drama, Economics, History of Art, Classics, Social Policy, Computing IT, Zoology, Geology, and Geography.

Six major themes were identified within the qualitative data gathered (O'Connor, Kubiak, Espiner, and O'Brien, 2012). These included the motivation to agree to host a student with intellectual disabilities in their course(s), attitudes toward inclusive practices, impact of the student with intellectual disabilities participation on the students without disabilities enrolled in the course(s), adjustments and challenges within already existing teaching practices, resource

issues, and suggested improvements to the postsecondary program course options. The first theme, regarding motivation, demonstrated that the majority of the faculty members felt a sense of social justice and obligation to assist in providing opportunities for inclusion and equality and also saw the opportunity as a way to adjust and grow in their abilities and competence as a teacher, which later caused them to be reflective in their teaching. Two participants felt that it was important to support collegial initiatives, while one faculty member felt personally affirmed by the attention and interest shown by the student with intellectual disabilities while in class. Finally, the last two participants had personal experience working with family members with disabilities, so they were pleased to be a part of the study. Several of the faculty participants expressed that they felt they were not given clarity on the purpose of having an individual with intellectual disabilities audit their course(s), therefore they felt inadequate to reach the needs of the student or make appropriate adjustments to their teaching and expectations.

The second theme involved attitudes of faculty toward inclusive instructional practices. Faculty attitudes were found to be generally positive (O'Connor, Kubiak, Espiner, and O'Brien, 2012). The third theme, the impact of the student with intellectual disabilities participation on the students without disabilities enrolled in the course(s), leads to a very important and impressionable concept that will be discussed later in the present study. The findings from O'Connor et al.'s (2012) study were summarized in saying that the inclusion of individuals with intellectual disabilities in courses with undergraduate students without disabilities was a positive experience for all involved.

Having CCL [postsecondary program for individuals with disabilities] students in the class enabled this learning to be more immediate and keenly experienced. Such examples reveal the positive impact made by the CCL students' refreshing openness and insightful

learning, which lecturers [faculty members] believed served as role models for other undergraduate students in their classes. (O'Connor et al., 2012, p. 252)

The fourth theme discussed adjustments and challenges within existing teaching practices (O'Connor, Kubiak, Espiner, and O'Brien, 2012). The format of the class seemed to be a contributing factor to how faculty felt about teaching a class that included individuals with intellectual disabilities. Faculty that taught by lecture only, felt that they had a disadvantage because they were unable to engage with students to get to know them individually and their needs; not having the opportunity to engage with students and get to know them made it more difficult for faculty to make adjustments when needed. Other faculty members disclosed that they made many changes to their teaching style to make it more accessible to the diverse needs of all students in their course(s).

The fifth theme involved the lack of resources (O'Connor, Kubiak, Espiner, and O'Brien, 2012). According to faculty, student mentors were intended to a helpful resource because they were already enrolled in the course and also agreed to mentor the student with intellectual disabilities both in and out of class time. Unfortunately, faculty expressed frustration with consistent attendance of the student mentors or their lack of commitment to working with the student with intellectual disabilities for the entire length of the course. This resulted in frustration for faculty regarding the lack of resources built into the class. Finally, the sixth theme consisted faculty suggestions for improvement of the program. Faculty expressed that the program needed better ways to recruit mentors prior to courses starting, there needed to be opportunities for the student with intellectual disabilities to meet their faculty members prior to the course starting, and that faculty should be provided with notes on how to best engage a particular student with intellectual disabilities in their course.

Gibbons, Cihak, Mynatt, and Wilhoit (2015) conducted a study to examine college students' and faculty's attitudes toward opportunities for individuals with intellectual disabilities to attend postsecondary education programs. Participants from a single public university in the southeast region of the United States were divided into two categories, students and faculty. The 499 students and 152 faculty participants represented a variety of disciplines. All participants completed a survey online using a Likert-type scale of one (strongly disagree) through four (strongly agree). The survey contained shared items for both student and faculty participants. The survey also contained items specific to the participant, either student or faculty. An independent sample t-test to analyze differences between the student and faculty participants' responses was used to analyze the data.

The survey data indicated that student participants agreed that individuals with intellectual disabilities should be allowed to participate in campus activities and to join college student organizations as members (Gibbons, Cihak, Mynatt, and Wilhoit, 2015). The results also indicated that student participants disagreed that individuals with intellectual disabilities should only be allowed to interact with others with intellectual disabilities or similar disabilities. Student participants moderately disagreed that individuals with intellectual disabilities and/or autism preferred talking with only individuals that shared their same disability. When asked about their thoughts regarding whether individuals with intellectual disabilities should be allowed to have a life filled with typical activities, student participants strongly agreed. Student participants were asked if they would feel uncomfortable if individuals with intellectual disabilities enrolled in regular university courses. Student participants somewhat disagreed with the idea that they would be uncomfortable if individuals with intellectual disabilities were attending regular courses (Gibbons et al., 2015).

To obtain data about the perceived effect on teaching individuals with intellectual disabilities in college courses, Gibbons et al. (2015) asked faculty participants to answer questions related to their role as a faculty member. Faculty participants agreed or strongly agreed that they were in favor of altering their style of teaching to meet the needs of all students in their classroom, including those with intellectual disabilities (Gibbons et al., 2015). Faculty participants agreed or strongly agreed that university students would feel uncomfortable if students were enrolled in the same class and had intellectual disabilities. Generally, faculty participants also agreed or strongly agreed that having individuals with intellectual disabilities in their courses would disrupt the class. Faculty participants felt that the individuals with intellectual disabilities would require more time of the instructor and, therefore, take time away from other students. Data were aggregated according to the discipline of faculty members to detect any differences in views. Faculty members who taught in the School of Education held more positive opinions regarding these questions than the rest of the faculty (Gibbons et al., 2015). These results call attention to the type of training and education received by university faculty members within their disciplines. Most university faculty members are considered experts in their fields, but they may not have training in educational pedagogy. University faculty members who taught in the School of Education may have held more positive opinions due to their education and training regarding how to instruct diverse learners.

Overall, both student and faculty participants agreed that the opportunity for individuals with intellectual disabilities to participate in postsecondary education was positive (Gibbons et al., 2015). However, student and faculty participants disagreed in areas related to how the enrollment of individuals with disabilities in college courses would affect the course itself and the students enrolled in the course without intellectual disabilities. The results of this study

indicate that faculty and students may alter their thoughts based on the impact of having individuals with intellectual disabilities in their classes. Although both groups agreed that they would be comfortable with this integration, the faculty group was concerned that students would not feel comfortable (Gibbons et al., 2015). This finding illustrates that it is difficult to know and fully understand the perception of others, even if one thinks they know someone well. The results point to the need for faculty training in the area of differentiation because, although faculty agreed they would be comfortable teaching individuals with intellectual disabilities in regular classes, they also showed concern for the extra work that it may put on them as instructors.

According to Gibbons, Cihak, Mynatt, and Wilhoit (2015), as the number of postsecondary education program opportunities continue to increase, both the university faculty and the students without intellectual disabilities may need additional training. Necessary faculty training to support all students, specifically including those students with intellectual disabilities and their learning both within the classroom and within the campus community, will be important.

Impact of Postsecondary Programs on Individuals with Intellectual Disabilities

Participation in higher education impacts postsecondary outcomes for individuals with exceptional needs. Butler, Sheppard-Jones, Whaley, Harrison, and Osness (2016) completed a study specifically addressing the areas of community participation, relationships, choice-making, employment, respect and rights, and health and wellness. Participants in the study, designated the student group, consisted of 19 individuals with intellectual disabilities who had completed at least two semesters of college in the state of Kentucky. Participants in the study, considered the non-student group, consisted of 158 individuals who were 18-30 years old and were randomly

selected from a list of individuals receiving developmental disability waivers in the state of Kentucky. Researchers administered the National Core Indicators Adult Consumer Survey. Descriptive and inferential statistics were analyzed. The difference between the two groups' scores on a measure of life outcomes were compared.

Over 73% of the group who had some postsecondary education reported exercising in the past month, but only 37% of the non-student group reported exercising. The student group reported higher levels of health, less use of psychotropic medication, and higher employment rates. Approximately 83% of the student group noted that they had friends while only 54% of the non-student group indicated that they had friends. The results of the study indicated that individuals with intellectual disabilities were positively impacted by their experiences of participating in higher education opportunities in most areas assessed. The exception was the feelings of loneliness being similar between both those individuals who were participating in higher education and those individuals who were not experiencing postsecondary education options. The results of this study suggest that individuals with intellectual disabilities are positively impacted by participation in postsecondary experiences (Butler, Sheppard-Jones, Whaley, Harrison, & Osness, 2016). The exact type of participation and level of provided support was unclear in this study. Using a larger participant pool of students with intellectual disabilities and noting their level of participation in postsecondary education programs may have been beneficial to the study and the overall findings.

Prohn, Kelley, and Westling (2018) conducted a study to assess whether the level of independence of individuals with intellectual disabilities improved through their participation in a postsecondary higher education program on a college campus. Participants in the study were six individuals with intellectual disabilities, ages 19-23, who were attending a postsecondary

education program at a public, regional university in Southeastern United States. The study took place over one year. Family members with knowledge of the participants' skills and functioning were interviewed in August and April of the same academic year. During these interviews, family members were asked to complete the Scales of Independent Behavior- Revised (Bruininks et al., 1996), which was used to measure the functional independence, or the need for support, and adaptive behavior of the participant. The family members also completed the Support Intensity Scale (Thompson et al., 2004) for the researcher to measure the intensity of individual support needs that the participant requires to participate fully in everyday activities.

Results indicated that the participants demonstrated greater independence after one academic year of participation in higher education and required less daily support (Prohn, Kelley, and Westling, 2018). Based on the results of the study, Prohn, Kelley, and Westling noted that changes in independence might be due to support from the college campus community during the year of the study. In response to the research results, the researchers made the following statement:

We recognize that support provided by the college community was critical for creating an inclusive postsecondary education experience—one that contributed to increased self-sufficiency for students with ID [intellectual disabilities]. Developing similar support structures outside the college gates, though challenging, is a worthy pursuit for those who have accessed college and for many more young adults unable to access such an opportunity. (Prohn et al., 2018, p. 132)

The study by Prohn et al. (2018), although considered a pilot, is vital to guiding the implementation of postsecondary education programs for individuals with intellectual disabilities

in the future. Structured support within postsecondary education programs for individuals with intellectual disabilities leads to positive experiences for individuals with intellectual disabilities.

Impact of Postsecondary Programs on Individuals Without Intellectual Disabilities

The participation of individuals with exceptional needs in higher education may also impact postsecondary outcomes for individuals without exceptional needs. In 2013, Izzo and Shuman conducted a mixed-methods study of the influence of inclusive college programs that serve students with intellectual disabilities on typical students. The researchers explored the benefit of students spending extended time with individuals with intellectual disabilities after participating in a disabilities studies course that required an internship (Izzo and Shuman, 2013).

Participants in Izzo and Shuman's (2013) study included eight female undergraduate students aged 20 or 21 years from a large Midwestern university. The participants were enrolled in a university course, an internship, and assigned as educational coaches or mentors for individuals with intellectual disabilities. To complete this study, researchers used a survey, a focus group, and weekly journal entries written by the participants. Within these journal entries, participants reflected on how weekly course content connected to their work with individuals with intellectual disabilities. The survey instrument contained 35 items. Izzo and Shuman (2013) collected demographic information as well as the type and frequency of interactions with individuals with intellectual disabilities. The focus group participants were asked a series of six questions. The data collected from the focus group and journal entries were analyzed using discourse and narrative analyses (Izzo & Shuman, 2013). By using the verbal exchanges and conversations, as well as the written narratives of each participant, the researchers were able to analyze the data collected to reveal the "story they have to tell, a chronology of unfolding events, and turning points or epiphanies" (Creswell, 2013, p. 189).

According to Izzo and Shuman (2013), through an analysis of the survey, focus group, and journal entry data, four themes emerged. The first theme indicated that study participants were more comfortable with students or individuals with intellectual disabilities when the participants had had previous experience with individuals with intellectual disabilities. The second theme that emerged indicated that students enrolled in the disability studies internship experience often noticed when peers demonstrated attitudes toward individuals with intellectual disabilities. The third theme recognized that disability studies interns were often challenged to balance a variety of concepts. Concepts included program requirements for students with intellectual disabilities, self-determination, and dignity of risk (Izzo and Shuman, 2013). The fourth theme that emerged from this study was the participants chose to solidify their career path after working with individuals with intellectual disabilities.

The four themes suggest that the experience gained when working with individuals with intellectual disabilities was vital in helping participants to understand themselves and others. The experiences of working with individuals with intellectual disabilities helped to guide participants in making future choices about life, attitudes, and careers. Broadening the study to include the collection of participants in the study to include male participants as well as female participants to explore the relationship that gender may have on the results may have been more effective in the ability to generalize results. Knowledge of the participants' academic major may have been beneficial to understand participants' prior knowledge and comfort levels when working with individuals with intellectual disabilities. Izzo and Shuman's (2013) study also was limited in its application as researchers chose to focus on a small participant size drawn solely from one sizeable Midwestern university.

In 2014, Li, Wu, and Ong completed a mixed-methods study to explore the effect of a coursework-based intervention on attitudinal changes among undergraduate students. The researchers had two purposes for completing the study. The first purpose was to evaluate the impact of a coursework-based intervention system on participants' attitudes toward individuals with disabilities. The second purpose of the study was to examine the perceptions of participants regarding their experience with the intervention program. The study participants were 42 university students who were studying at a university in Singapore. The participant sample consisted of 18 males and 24 females. The intervention participant group consisted of nine males and 14 females who were enrolled in a three-credit-hour university disability awareness course. The course's curriculum shared information about various disabilities and also focused on social skills when meeting and interacting with individuals and disabilities. The control participant group consisted of nine male and 10 female participants. The participants in the control group were a convenience sample of students not enrolled in a course about disability awareness. However, the participants in the control group attended the same university as the intervention group and were similar to the intervention group members regarding age and gender. Participants majored in accounting, business, economics, engineering, Chinese, computer science, statistics, or visual communication, but not education, rehabilitation, or social work fields.

The focus areas of the study completed by Li et al. (2014) were the areas of empowerment, similarity, exclusion, and sheltering. The researchers found that the baseline measurements of the survey research resulted in no statistically significant group differences. Li and colleagues (2014) used ANOVA, a two-by-two repeated measure analysis variance, to measure whether positive attitudinal changes over time impacted the participants in the control

group. For the intervention group, researchers noted a positive change in empowerment scores ($p < .01$) which reflects the attitude that individuals with disabilities can support themselves and lead active lives. Regarding the achievement of individuals with disabilities, one student who participated in the disability awareness course commented, “It is amazing how they can achieve so much in life, even much more than a person without a disability” (Li et al., 2014, p. 798).

Overall, Li et al. (2014) concluded that possible changes in participants’ attitudes were due to self-esteem, misconceptions about individuals with intellectual disabilities prior to the study, and the participants’ level of competence when working with individuals with intellectual disabilities prior to the study. Participants participating in the university course on disability awareness, the intervention group, clarified any previous misconceptions or concerns regarding individuals with disabilities during the course, resulting in an overall positive attitude change toward individuals with disabilities. The results compiled by Li et al. (2014) suggest that if individuals are given the tools to understand and learn background information about various disabilities or information about individuals with intellectual disabilities, individuals’ attitudes may change positively toward individuals with disabilities. These findings point to the need for opportunities for individuals to explore disability awareness and to have opportunities to interact with individuals with disabilities in a natural setting, such as a university setting, for individuals to demonstrate positive attitudes toward individuals with intellectual disabilities.

In 2012, Cynthia May researched the impact of postsecondary programs for students with intellectual disabilities on campus communities. May (2012) chose to conduct her study based on Gordon Allport’s contact theory. According to McKay (2018), in 1954 Gordon Allport was the first to suggest that relationships between members of the majority and minority groups may improve over time when individuals engage in social contact with each other.

[Allport's] theory has been used to explain a great deal about human relations, particularly in terms of prejudice and differences. Allport theorized that as people come into contact with others different from themselves, their prejudiced ideas would diminish as they come to understand the other person. (Mckay, 2018, p. 21)

Using contact theory as guidance, May (2012) included in the study 138 undergraduate students with and without intellectual disabilities, 18-24 years of age. Participants were enrolled in one of several university introductory psychology courses. An introductory psychology course was a general requirement for all students obtaining a degree at a particular university. The participants in the control group ($n = 85$) were students who did not have an intellectual disability and who did not have any students with an intellectual disability participating in any of their on-campus classes. The participants in the variable group ($n = 53$) were labeled as the inclusive group by May (2012). The inclusive group consisted of 90% of students without a disability and 10% of students with intellectual disabilities. Participants in both the control group and the inclusive group attended all class sessions and participated in class discussions, activities, assignments, and assessments, regardless of intellectual disability status. Participants with intellectual disabilities were given accommodations and modifications for assignments and assessments as needed according to individual needs. Each student participant who had an intellectual disability had access to a peer mentor for assistance outside of the class; however, the peer mentor was not physically present during class sessions to assist the participant.

May (2012) used the Miville-Guzman Universality-Diversity Scale (Miville et al., 1999) to collect data for the study. The instrument is a 45-item survey measuring an individual's attitude toward others, addressing tolerance of race, gender, culture, religion, and disability. The survey also measures the awareness of and acceptance of differences in others (May, 2012). All

participants completed the Miville-Guzman Universality-Diversity Scale (Miville et al., 1999) at the beginning and at the end of the semester. The results of the Miville-Guzman Universality-Diversity Scale (Miville et al., 1999) consist of three subscales assessing a sense of connection with others, diversity of contact, and relativistic appreciation (May, 2012). May (2012) conducted a series of two-by-two repeated measures analyses to evaluate the total score on the Miville-Guzman Universality-Diversity Scale (Miville et al., 1999) as well as the scores relating to each of the three subscales: a sense of connection with others, diversity of contact, and relativistic appreciation. Overall, the effect of the control group was not reliable, $F(1, 25) = 2.6$, $\rho = .11$, $\eta^2 = 0.02$, but when addressing the effect of assessment time, there was a main effect $F(1, 125) = 66.6$, $\rho < .01$, $\eta^2 = 0.35$. When the semester began, the overall scores for both the control group and the inclusive group did not differ ($F < 1$). However, the overall scores for participants who were in the inclusive group scored higher after their inclusive experience in the course that included individuals with intellectual disabilities compared to the scores of the control group, $F(1, 125) = 9.02$, $\rho < .01$, $\eta^2 = 0.07$.

Gordon Allport's (1955) contact theory would suggest that these significant changes in the scores for the inclusion group at the end of the semester would be primarily due to regular interaction with individuals with intellectual disabilities. May (2012) suggested that the participants' attitudes toward the individuals with intellectual disabilities could also have been a result of the attitude, leadership, and example of the instructor of the course. Each instructor who taught an inclusive class received training in best inclusive practices and universal design and requested to be a part of the experience. May (2012) suggested that the positive attitudes of university instructors from the beginning of the study, the intentionality of instructors to differentiate instruction, and the requirement of group projects and discussions may have

contributed largely to the participants' overall attitudes toward individuals with intellectual disabilities at the conclusion of the semester.

The results of May's (2012) point toward emphasizing the importance of the contact theory, a vital element necessary to answer the stated research questions. The results suggest the need for individuals without disabilities to spend time in a setting where they interact with individuals with intellectual disabilities to develop connections with others who are different than they, as well as to provide a realistic appreciation for individuals with intellectual disabilities. May's (2012) study, however, was limited in its application as she chose to front-load instructors teaching the inclusive classes with training in best practices for inclusive teaching as well as specific training in universal design practices. These pieces of preparation allowed for instructors to learn how best to differentiate instruction based on the individual needs of each student with an intellectual disability, unlike the instructors in the control group who did not have any students with intellectual disabilities. Limitations may have contributed to the attitudes of participants based on the idea that they were guided in their thoughts by the modeling of their instructors' actions and attitudes toward individuals with intellectual disabilities. It may have been vital in this research study to either have all instructors from both groups participate in the inclusive and universal design training or neither group participate in the training. From this data collection, it is difficult to narrow the results to identify if the data shows a result of the attitudes and modeling of the instructors, if the data shows results due to contact participants had in class with individuals with intellectual disabilities, or a combination.

Kropp and Wolfe conducted a study in 2018 to address the question of whether direct contact with individuals with developmental disabilities positively altered college students' attitudes toward people with developmental disabilities. The participants of the study were 19

undergraduate students at a regional university in the Southeast region of the United States. Participants applied to and were accepted to participate as counselors or activity facilitators at a two-week camp for individuals with intellectual disabilities. The disabilities and ages of the campers varied. Campers ranged in age from 20 to 54 years old. Half of the study's participants lived in cabins with the campers, while the other participants lived in staff cabins but were assigned to specific groups of campers for various activities. Each participant completed The Multidimensional Attitude Scale toward Persons with Disabilities (Findler, Vilchinsky, & Werner, 2007) and a demographic and open-ended questionnaire created by the researcher before and after their camp experience. The findings from Findler et al. (2007) suggested that direct contact with individuals with developmental disabilities positively altered the perceptions of college students' attitudes toward individuals with developmental disabilities. Kropp and Wolfe (2018) identified two limitations to the study: a small sample size of 19 and the participants, who were primarily female, being a self-selected group. The results of the study by Kropp and Wolfe (2018) is worth noting because they call attention to positive impacts of the contact theory (Allport, 1955) when individuals without developmental disabilities are in direct contact with individuals with developmental disabilities. The limitations identified by Kropp and Wolfe (2018) point to the need for additional research of a sample that has mixed genders and not self-selected for the study. Importantly, the results of the study illustrate the need for a similar study to be completed in a natural environment, such as on a university campus where natural supports for individuals with intellectual disabilities could be implemented by a university's program for intellectual disabilities at the postsecondary level.

As postsecondary higher education programs become more accessible to individuals with exceptional needs, recognizing the attitudes of college faculty, staff, and students toward these

programs, and the inclusion of individuals with exceptional needs on campus may play significant roles in the success of the programs. Gibbons, Cihak, Mynatt, and Wilhoit (2015) surveyed 152 faculty members and 499 students at a large Southeastern university to collect data about participants' beliefs regarding postsecondary education for students with exceptionalities. Overall, the responders' attitudes toward individuals with exceptional needs participating in postsecondary higher education were generally positive. One-fifth of the participants surveyed were unsure whether their campus provided postsecondary options for individuals with exceptional needs. Responses regarding the impact that the students with exceptional needs would have on the campus community differed among the participants. The student participants generally agreed that individuals with exceptional needs should be allowed to participate in all campus activities. Participants also held the belief that having individuals with exceptional needs on campus would help others learn how to better interact with members of the exceptional needs population. The faculty participants posed concerns regarding the effect that students with exceptional needs had on other college students. The results of the study by Gibbons et al. (2015) calls attention to a need for research exploring the perceptions and attitudes of both university faculty and students on a university campus both prior to contact with a university's program for intellectual disabilities being conducted on campus and after university faculty and students have had involvement with a university's program for intellectual disabilities. Allport's (1955) contact theory suggests the impact of a university's program for intellectual disabilities on undergraduate students' perceptions and attitudes would be positive.

Summary

The implementation of two laws, the Americans with Disabilities Act of 1990 (ADA, 1990) and the Individuals with Disabilities Education Improvement Act of 2004 (IDEA, 2004),

has provided opportunities for individuals with intellectual disabilities to actively participate in a variety of inclusive environments, including postsecondary higher education programs.

Researchers have conducted studies regarding how these opportunities have impacted individuals with intellectual disabilities; however, little research has studied how contact with a university's program to assist special needs college students impacts undergraduate students' perception of individuals with intellectual disabilities enrolled on a college campus or undergraduates' personal comfort level in working with special needs students.

In Chapter III, the methods used to evaluate how a university's program to assist students with intellectual disabilities make a transition from high school to adulthood impacted undergraduate students' perceptions of individuals with intellectual disabilities and undergraduate students' personal comfort level of working with individuals with intellectual disabilities enrolled on a college campus will be outlined.

III. METHODOLOGY

The purpose of the study was to evaluate how a university's program designed to assist students with intellectual disabilities successfully transition from high school to adulthood impacted undergraduate students' perceptions of individuals with intellectual disabilities and undergraduate students' personal comfort level of working with individuals with intellectual disabilities enrolled on a college campus. University programs designed to assist students with intellectual disabilities successfully transition into adulthood have been implemented in just the last twenty years. The impact of programs on undergraduate students' perception of individuals with intellectual disabilities and undergraduate students' personal comfort level of working with individuals with intellectual disabilities enrolled on a college campus represented the focus of the study.

Description of Methodology

The study was considered quantitative and non-experimental by research design. The study was conducted at a small, private, Midwestern university. The study's intervention variable was undergraduate participants' involvement with a university's program for individuals with intellectual disabilities. Participant involvement included involvement in a peer mentor program or organized campus activities or both a peer mentor program and organized campus activities with peer students identified as individuals with intellectual disabilities.

Participants

Study participants were individuals, 18 years of age or older, who had contact with a university's program designed to assist students with intellectual disabilities during their undergraduate college years either through a peer mentor program or organized campus activities or both a peer mentor program and organized campus activities. All undergraduate students from the university identified for study purposes were invited to participate if they met the stated qualifications. Participants identified within various majors of study within the university and were notified of the opportunity to participate through a campus-wide announcement posted in a daily digital newsletter that is distributed via email to all enrolled undergraduate students. Volunteer participants completed the study's survey via an online format using the link provided in the email. Participant names or information that would identify individual participants were not collected. Participants completed the survey (Appendix A) with answers reflecting their perceptions of their experiences with a university's program designed to assist students with intellectual disabilities.

Instrument

The study's research instrument was a researcher-created survey measuring undergraduates' general attitude toward individuals with intellectual disabilities and undergraduates' perception of personal effectiveness in addressing the needs of students with intellectual disabilities. An a priori content validity judgment process was used in the establishment of essential themes that would represent the foundation of research instrument item creation.

A pilot survey was conducted using 30 study participants for instrument validation purposes. The responses to the study's research instrument in the pilot version of the instrument

were analyzed using the Cronbach's alpha statistical technique for validation purposes prior to the actual administration of the instrument to the entire study participant sample. A large response effect ($d = 0.80$) was sufficient to detect a statistically significant finding, with a sample of 27 sufficient with a medium response effect ($d = 0.50$). The study's anticipated sample size of 60 was more than sufficient to detect significance of finding with both a medium and large treatment effect. Moreover, a response effect as low as $d = 0.31$ was deemed sufficient to detect a statistically significant finding with the anticipated sample size.

Procedures

Prior to data collection, approval for the study was obtained from the Institutional Review Board at two universities, the university sponsoring the research study as well as the university where the study was to be conducted. Both Institutional Review Boards deemed the research study exempt. The link to an online survey was distributed via a daily campus newsletter that was emailed directly to all university undergraduate students and faculty. Necessary information regarding the survey and participant criteria were explained at the beginning of the online survey. By starting the survey, individuals meeting the stated criteria gave consent to participate in the research study. The survey was available for seven days. The researcher aimed to receive a minimum of 60 completed surveys. After seven days, the survey was closed by the researcher with a total of 91 completed surveys.

Data Analysis

Prior to the analysis of research questions posed in the study, introductory analyses were conducted. Specifically, the analyses that were conducted included: missing data, internal consistency (reliability) of participant response, and essential demographic information.

Missing data were anticipated to be analyzed using descriptive and inferential statistical techniques with the randomness of missing data projected to be assessed using Little's MCAR test statistic. However, in light of the intactness of the study's data, evaluations of missing data were not a consideration.

Internal reliability of participant response to the survey instrument was assessed using Cronbach's alpha. The statistical significance of alpha was evaluated through the application of an *F* test. *F* values of $p < .05$ are considered statistically significant.

Essential demographic information was analyzed using primarily descriptive statistical techniques. Specifically, frequency counts (n) and percentages (%) were utilized for illustrative purposes.

Research Questions

The study's three proposed research questions were addressed broadly using a variety of descriptive and inferential statistical techniques. Frequency counts (n), measures of central tendency (i.e., mean scores), and variability (i.e., standard deviation) represented the primary descriptive statistical techniques used in the three research questions. In all three research questions, the One Sample *t*-test represented the primary inferential technique used.

The alpha or probability level of $p < .05$ represented the threshold for statistical significance of findings. The Cohen's *d* statistical technique was used to assess the magnitude of effect or effect size in each of the three research questions. Sawilowsky's (2009) conventions were applied to all *d* values for qualitative interpretive purposes.

In order to address the stated research problem, the following research questions were posed:

1. To what degree did study participants' general attitude toward individuals with intellectual disabilities change after participating in a university's program to assist special needs college students?
2. To what degree did study participants' overall perception of effectiveness in addressing the needs of individuals with intellectual disabilities change after participating in a university's program to assist special needs college students?
3. In which area (a more positive attitude toward students with intellectual disabilities, acceptance of individuals with intellectual disabilities, motivation to engage with students with intellectual disabilities, perceptions of the capabilities of students with intellectual disabilities, or perceptions of the ability of students with intellectual disabilities to participate in typical activities of community life) did study participants manifest the greatest degree of perceived change in attitude after participating in a university's program to assist special needs college students?

Summary

In Chapter III, a detailed account of the methodology used in the quantitative study was presented. The research study was designed to evaluate how a university's program specifically designed to assist students with intellectual disabilities impacted undergraduate students' perception of individuals with intellectual disabilities enrolled on a college campus. The study's sample of participants, research instrumentation, and study procedures were outlined within the chapter. The trustworthiness of the study was addressed and processes to ensure ethics were explained. The process of analyzing data was outlined to demonstrate how the research questions were addressed statistically. An in-depth analysis of the data and subsequent findings are provided in Chapter IV.

IV. RESULTS

The purpose of the study was to evaluate the degree to which a university's program designed to assist students with intellectual disabilities transitioning from high school to adulthood impacted undergraduate students' perceptions of individuals with intellectual disabilities. Elements deemed essential for student success in the undergraduate university environment represented the focus of study instrumentation and subsequent elicitation of study participant perceptions.

Methods of Data Collection

Research instrument validation of an a priori nature was conducted through content validity judgment of prospective survey items and a follow-up pilot study of the study's research instrument with 30 study participants. Study participants' level of internal reliability of response to items ($\alpha = .90$) on the research instrument at the pilot phase of the study was considered excellent (Field, 2018).

Three research questions and one ancillary analysis were posed to address the study's topic and research problem. Descriptive, associative/predictive, and inferential techniques were utilized to address the research questions, ancillary question, and preliminary analyses. Chapter IV represents a formal reporting of the study's findings.

Response/Completion Rate

The study's sample comprises a total of 91 participants, a sample size that far exceeded the desired sample size of 60 at the outset of the study. The completion rate of survey items on the study's research instrument was 100%, a figure well beyond the customary completion rate of 78.6% generally achieved through surveying. In light of the intactness of the study's data set, no consideration was accorded to imputation procedures.

Internal Reliability

The internal reliability of study participant response to survey items on the research instrument was assessed using Cronbach's alpha statistical technique. As a result, the overall internal reliability of study participant response was manifested at $\alpha = .92$, a level considered to be excellent (Field, 2018). Moreover, the internal reliability of the two categories of study participants was manifested at an excellent level ($\alpha \geq .90$).

Table 1 contains a summary of findings for the internal reliability of study participants' responses to survey items on the study's research instrument:

Table 1

<i>Internal Reliability</i>		
Category	<i>n</i>	<i>α</i>
Peer Mentors	52	.91
Organized Campus Activity	39	.93
Overall	91	.92

Data Analysis by Research Question

Research Question 1

To what degree did study participants' general attitude toward individuals with intellectual disabilities change after participating in a university's program to assist special needs college students?

The one sample *t*-test was used to assess the statistical significance of the change in study participants' response regarding general attitude change toward individuals with intellectual disabilities after participating in a university's program to assist special needs college students. As a result, the study participant mean score of 4.75 (*SD* = 0.63) for perceived change of general attitude toward individuals with intellectual disabilities after participating in a university's program to assist special needs college students was manifested at a statistically significant level, $t(90) = 26.66; p < .001$.

The magnitude of effect for participant response to research question one was assessed using Cohen's *d* statistical technique. The effect of study participants' responses to changes in general attitude toward individuals with intellectual disabilities after participating in a university's program to assist special needs college students was considered huge ($d = 2.78$).

*H*₀. There will be no statistically significant degree of study participant attitude change toward individuals with intellectual disabilities after participating in a university's program to assist special needs college students.

In light of the statistically significant finding for study participants' perceived change of general attitude toward individuals with intellectual disabilities after participating in a university's program to assist special needs college students, the null hypothesis for research question one was rejected.

Research Question 2

To what degree did study participants' overall perception of effectiveness in addressing the needs of individuals with intellectual disabilities change after participating in a university's program to assist special needs college students?

The one sample *t*-test was used to assess the statistical significance of the change in study participants' overall perception of effectiveness in addressing the needs of individuals with intellectual disabilities after participating in a university's program to assist special needs college students. As a result, the study participant mean score of 4.55 (*SD* = 0.49) for overall perceived change in participants' effectiveness in addressing the needs of individuals with intellectual disabilities perceived change after participating in a university's program to assist special needs college students was manifested at a statistically significant level, $t(90) = 30.08$; $p < .001$.

The magnitude of effect for participant response was assessed using Cohen's *d* statistical technique. The effect of study participant response to perceived effectiveness in addressing the needs of individuals with intellectual disabilities perceived change after participating in a university's program to assist special needs college students was considered huge ($d = 3.16$).

H_0 . There will be no statistically significant degree in change of study participant overall perception of effectiveness in addressing the needs of individuals with intellectual disabilities after participating in a university's program to assist special needs college students.

In light of the statistically significant finding for study participant overall perceived effectiveness in addressing the needs of individuals with intellectual disabilities after participating in a university's program to assist special needs college students, the null hypothesis for research question two was rejected.

Research Question 3

In which area (a more positive attitude toward students with intellectual disabilities, acceptance of individuals with intellectual disabilities, motivation to engage with students with intellectual disabilities, perceptions of the capabilities of students with intellectual disabilities, or perceptions of the ability of students with intellectual disabilities to participate in typical activities of community life) did study participants manifest the greatest degree of perceived change in attitude after participating in a university's program to assist special needs college students?

The one sample *t*-test was used to assess the statistical significance of study participants' perceptions within the five specific elements identified in research question three. The Cohen's *d* statistical technique was used to assess the magnitude of effect for participants' responses within each of the five elements of research question three. Each of the five elements manifested huge, statistically significant magnitudes of effect in study participant response. The single greatest magnitude in study participant response was manifested in the element of acceptance of individuals with exceptional needs regardless of handicapping condition.

Table 2 contains a summary of findings for the comparison of response effect within the five elements identified in research question three.

Table 2

Comparisons of Effect for Elements

Element	n	Mean	SD	t	d
Positive Attitude	91	4.75	0.63	26.66***	2.78 ^a
Acceptance	91	4.84	0.48	36.66***	3.83 ^a
Motivation to Engage	91	4.57	0.64	23.61***	2.45 ^a
Ability to Participate Typically	91	4.73	0.54	30.54***	3.20 ^a
Perceived Capability	91	4.74	0.53	31.01***	2.28 ^a

Note. ^a Huge Effect ($d \geq 2.00$) *** $p < .001$

H_a. Study participant motivation to engage with individuals with intellectual disabilities will manifest the greatest degree of perceived change after participating in a university's program to assist special needs college students.

In light of the superior effect in the finding for the element acceptance of individuals with exceptional needs regardless of handicapping condition, the alternative hypothesis for research question three was rejected.

Ancillary Analysis/Finding

Although not included within the study's focus and formal line of research questioning, an additional, ancillary analysis was conducted for possible prescriptive purposes. Specifically, the demographic identifier variable of length of program service was used to predict study participant overall perceptions of overall efficacy in addressing the needs of individuals with intellectual disabilities after participating in a university's program to assist special needs college students.

The simple linear regression statistical technique was used to assess the predictive ability of the independent variable length of program service. As a result, the independent variable length of program service represented a statistically significant predictor of study participants' perceptions of overall efficacy in addressing the needs of individuals with intellectual disabilities after participating in a university's program to assist special needs college students.

The predictive model was viable ($F_{(1, 89)} = 20.25; p < .001$). The mathematical relationship between length of program service and the dependent variable of study participants' perceptions of overall efficacy in addressing the needs of individuals with intellectual disabilities was $r = .43$, representing a large associative/predictive effect ($r^2 = .19$).

Table 3 contains a summary of finding for the predictive model used to address the study's ancillary analysis:

Table 3

Predicting Study Participant Perceptions of Overall Efficacy

Model	β	SE	Standardized β
Intercept	4.17	0.10	
Length of Program Service	0.15	0.03	.43***

Note. *** $p < .001$

Summary

Chapter IV contained the formal reporting of findings for the study. Analyses of study data were conducted using descriptive and inferential statistical techniques. Three research questions were posed to address the study's topic. In research question one, study participants' perceived change of general attitude toward individuals with intellectual disabilities after participating in a university's program to assist special needs college students was manifested at a statistically significant level. In research question two, the study participants' perceived change

in effectiveness in addressing the needs of individuals with intellectual disabilities perceived change after participating in a university's program to assist special needs college students was manifested at a statistically significant level. And, in research question three, all five elements manifested huge, statistically significant magnitudes of effect in study participants' responses. The single greatest magnitude in study participants' responses was manifested in the element of acceptance of individuals with exceptional needs regardless of handicapping condition.

One additional analysis of an ancillary nature was conducted to determine the predictive ability of study participants' years of experience with study participants' perceptions of efficacy in addressing the needs of individuals with intellectual disabilities. As a result, the independent variable length of program service represented a statistically significant predictor of study participants' perceptions of overall efficacy in addressing the needs of individuals with intellectual disabilities after participating in a university's program to assist special needs college students. Chapter V of the study contains a discussion of the study's findings recorded in Chapter IV.

V. DISCUSSION

The purpose of the study was to evaluate the degree to which a university program designed to assist students with intellectual disabilities successfully transition from high school to adulthood impacted undergraduate students' perceptions of individuals with intellectual disabilities and their personal comfort level of working with these individuals. The study contained findings that appear supportive of a difference in perceptions and attitudes of undergraduate students without intellectual disabilities toward individuals with intellectual disabilities after participating in a university's program for individuals with intellectual disabilities. Chapter V contains a discussion of this study's findings.

Statement of the Problem

Over the last 20 years, university programs designed to assist with intellectual disabilities successfully transition into adulthood have been implemented in various ways. Research has been conducted to evaluate how university programs for college aged individuals with special needs have impacted the postsecondary lives of individuals with intellectual disabilities. The impact of those programs on individuals with intellectual disabilities has resulted in positive changes in postsecondary outcomes for individuals with intellectual disabilities (Butler, Sheppard-Jones, Whaley, Harrison, & Osness, 2016). With the support of the Individuals with Disabilities Education Improvement Act of 2004, researchers identified growth in areas of independent living, education, and employment. The Higher Education Opportunity Act of 2008

encouraged individuals with intellectual disabilities to continue growing in the areas of independent living, education, and employment through participation in higher education settings. According to Butler et al. (2016), benefits for individuals with intellectual disabilities attending a postsecondary program in higher education are evident. The impact of programs upon undergraduate students' perception of individuals with intellectual disabilities and undergraduate students' personal comfort level of working with individuals with intellectual disabilities enrolled on a college campus had not been fully explored prior to the current study. The study was intended to provide research findings for university programs that assist individuals with intellectual disabilities by identifying the existence of any benefit to undergraduate students without intellectual disabilities.

Review of Methodology

This study was considered a non-experimental, and quantitative by research design. The study's intervention variable was participant involvement in a peer mentor program, organized campus activities, or both a peer mentor program and organized campus activities with peer students identified as individuals with intellectual disabilities.

Study participants were undergraduate students, 18 years of age or older, who participated in a university's program designed to assist students with intellectual disabilities during their undergraduate college years either through a peer mentor program, organized campus activities, or both a peer mentor program and organized campus activities. Undergraduate students who met the criteria were notified of the opportunity to participate in an online survey. Participants completed the survey (Appendix A) with answers reflecting their experiences with a university's program to assist students with intellectual disabilities. After one

week of collecting data, 91 responses were collected—well beyond the desired 60 responses—and the survey was closed.

Prior to the analysis of research questions, preliminary analyses were conducted. Specifically, missing data, internal consistency (reliability) of participant response, and essential demographic information were analyzed for study purposes. Missing data were analyzed using descriptive and inferential statistical techniques. Specifically, frequency counts (n) and percentages (%) were utilized for illustrative purposes. Little's MCAR test statistic was utilized to evaluate the randomness of subsequent missing data.

In the absence of an existing, standardized research instrument designed to address the study's topic, a research instrument was created for study purposes. Research instrument validation of an a priori nature was conducted through content validity judgment of prospective survey items and follow-up piloting of the study's research instrument with 30 study participants. Internal reliability of participant response to the survey instrument was considered statistically significant. The overall internal reliability of the study participant response was manifested at $\alpha = .92$, a level considered to be excellent (Field, 2018). The survey instrument's internal reliability of response confirmed that the instrument was able to produce valid and reliable data associated with the study's topic. Moreover, the internal reliability of the two categories of study participants was manifested at an excellent level ($\alpha \geq .90$).

Three research questions and one ancillary analysis were posed to address the study's research problem. Descriptive, associative/predictive, and inferential techniques were utilized to address the research questions, preliminary analysis, and ancillary question.

Summary of Results

Research Question 1

To what degree did study participants' general attitudes toward individuals with intellectual disabilities change after participating in a university's program to assist special needs college students?

The study participant response regarding general attitude change toward individuals with intellectual disabilities after participating in a university's program to assist special needs college students was assessed and found to be positive. As a result, study participants' mean score of for perceived change of general attitude toward individuals with intellectual disabilities after participating in a university's program to assist special needs college students was manifested at a statistically significant level. Additionally, the magnitude of effect for study participant response to general attitude toward individuals with intellectual disabilities changes after participating in a university's program to assist special needs college students was considered huge.

The themes that emerged from Izzo and Shuman's (2013) study suggested that the participants' experience of working with individuals with intellectual disabilities was vital in helping the participants understand themselves and others. The experience the participants gained led them to be more comfortable with individuals with intellectual disabilities and to notice when other students demonstrated attitudes that were not positive toward individuals with intellectual disabilities. The research findings imply that positive attitude changes indicated by participants suggest that participants recognized the attitudes demonstrated by non-participants toward individuals with intellectual disabilities and became more reflective of their own attitudes toward individuals with intellectual disabilities.

At the completion of the current study, the findings aligned with Izzo and Shuman's (2013) study and results which indicated that not only are undergraduate students without disabilities more comfortable working with individuals with intellectual disabilities after participating in a university's program to assist special needs college students, but also the perceived change of general attitude toward a university's program to assist special needs college students was manifested at a statistically significant level.

Research Question 2

To what degree did study participants' overall perception of effectiveness in addressing the needs of individuals with intellectual disabilities change after participating in a university's program to assist special needs college students?

Participants' perception of their effectiveness in addressing the needs of individuals with intellectual disabilities increased after participating in a university's program to assist special needs college students. Study participants' mean score for overall perceived effectiveness in addressing the needs of individuals with intellectual disabilities changed in a statistically significant manner after participating in a university's program to assist special needs college students. The change of study participant response to perceived effectiveness in addressing the needs of individuals with intellectual disabilities change after participating in a university's program to assist special needs college students resulted in a huge effect.

Perceived individual effectiveness when working with individuals with intellectual disabilities increased at a statistically significant level ($p < .001$) within the findings of the current study. Individuals without intellectual disabilities demonstrated a need for experience working with individuals with intellectual disabilities in order to perceive themselves as effective and comfortable assisting individuals with intellectual disabilities. By having these experiences,

the comfort level of individuals without intellectual disabilities significantly increases ($p < .001$). According to Gibbons et al. (2015), as the number of postsecondary education programs for individuals with intellectual disabilities continues to increase, both the university faculty and the students without intellectual disabilities may need additional training. Training in understanding general information regarding intellectual disabilities as well as knowledge of specific learning needs, styles, and abilities of individual students would allow for faculty to support all students, including students with intellectual disabilities, both within the classroom and the campus community.

Research Question 3

In which area (a more positive attitude toward students with intellectual disabilities, acceptance of individuals with intellectual disabilities, motivation to engage with students with intellectual disabilities, perceptions of the capabilities of students with intellectual disabilities, or perceptions of the ability of students with intellectual disabilities to participate in typical activities of community life) did study participants manifest the greatest degree of perceived change in attitude after participating in a university's program to assist special needs college students?

Within the study, the researcher identified five specific elements to assess the statistical significance of study participant perceptions. These elements included positive attitude, acceptance, motivation to engage, ability to participate typically, and perceived capability. The results indicated that each of the five elements manifested huge, statistically significant magnitudes of effect in the study participants' responses. Though still statistically significant, the element of perceived capability manifested the lowest magnitude of effect ($d = 2.28$) as measured by study participant response. These findings align with the work of Gibbons, Cihak,

Mynatt, and Wilhoit (2015) whose research findings indicated that student participants agreed that individuals with intellectual disabilities should be allowed to participate in campus activities and to join college student organizations because participants felt that individuals with intellectual disabilities were capable and should be allowed to have a life filled with typical activities. Additional findings from Gibbons et al. (2015) also indicated that both student and faculty participants agreed that the opportunity for individuals with intellectual disabilities to participate in postsecondary education opportunities was positive.

The element of acceptance manifested the greatest magnitude of effect as measured by study participant response. Izzo and Shuman's 2013 study results supported these same findings. Through the narrative analysis results collected during Izzo and Shuman's (2013) study, it was suggested that comfort level was related to the acceptance of individuals with intellectual disabilities. One could conclude that the element of acceptance could be the result of an individual participating in a college program for individuals with intellectual disabilities based on the participant's increased comfort level when around individuals with intellectual disabilities. In a study conducted by Gibbons et al. (2015), participants demonstrated that they regarded individuals with intellectual disabilities favorably. Within this study, faculty participants also agreed or strongly agreed that they were in favor of altering their style of teaching to meet the needs of all students in their classroom, including those with intellectual disabilities.

Ancillary Analysis

Although not included within the study's focus and formal line of research questioning, an additional ancillary analysis was conducted for possible prescriptive purposes. Specifically, the demographic identifier variable of the length of program service was used to predict study participants' overall perceptions of overall efficacy in addressing the needs of individuals with

intellectual disabilities after participating in a university's program to assist special needs college students. The independent variable length of program service represented a statistically significant predictor of study participants' perceptions of overall efficacy in addressing the needs of individuals with intellectual disabilities after participating in a university's program to assist college students with intellectual disabilities. The relationship between the length of program service and the dependent variable of study participants' perceptions of overall efficacy in addressing the needs of individuals with intellectual disabilities represented a large associative/predictive effect.

In summary, the results for the ancillary analysis demonstrate the relationship between the amount of direct contact with individuals with intellectual disabilities and the overall efficacy in addressing the needs of individuals with intellectual disabilities by undergraduate students without intellectual disabilities. These findings align with the work of May (2012) whose results suggested the need for individuals without disabilities to spend time in a setting where they can interact with individuals with intellectual disabilities. Individuals without intellectual disabilities can develop connections with others who are different from them, as well as provide a realistic appreciation for individuals with intellectual disabilities. Kropp and Wolfe (2018) used The Multidimensional Attitude Scale toward Persons with Disabilities (Fidler, Vilchinsky, & Werner, 2007) with participants in a study to address the question of whether direct contact with individuals with developmental disabilities positively altered college students' attitudes toward people with developmental disabilities. Findings from Kropp and Wolfe (2018) suggested that direct contact with individuals with developmental disabilities positively altered college students' attitudes toward people with developmental disabilities. Similarly, the findings from the present research also suggested that direct contact with individuals with intellectual disabilities

positively altered the perceptions of college students' attitudes toward individuals with intellectual disabilities.

As a result of extensive literature indicating barriers to employment opportunities for individuals with intellectual disabilities a study was completed by Chi and Qu in 2003 measuring the attitudes of employers toward individuals with intellectual disabilities and the effect these attitudes had on the hiring practices of the employers. Findings from Chi and Qu (2003) suggested that prior positive experience working with individuals with disabilities were associated with favorable employers' attitudes, resulting in positive work environments as well as increased productivity.

Chi and Qu's (2003) study connects to the results of the ancillary analysis of the present study. When individuals without intellectual disabilities increase the amount of direct contact they have with individuals with intellectual disabilities, a variety of positive outcomes occur that sometimes impact society as a whole. These positive attributes would improve the workplace environment and result in greater productivity; therefore, by providing postsecondary programs for individuals with intellectual disabilities the lifelong impact is not only on the individuals with disabilities, but also on individuals without disabilities that will eventually be in the workplace as colleagues or even as employers. When individuals demonstrate an ability to accept others that are different than themselves, societal interactions positively improve.

Study Limitations

Although the study provided valuable data revealing how a university's program to assist students with intellectual disabilities transition from high school to adulthood impacted undergraduate students' perceptions of individuals with intellectual disabilities and undergraduate students' comfort level of working with individuals with intellectual disabilities

enrolled on a college campus, the study had several limitations. The sampling technique used in the research study, although credible, was non-probability by definition. As such, the results may not generalize beyond the Midwestern location of the university, and the private status of the university. Furthermore, the primary source of data was perceptual in nature. Although the perceptions of participants are important to the study as perceptions often become one's reality, participant bias in responding to the survey questions could not be controlled for. Moreover, the study did not extend beyond the participants' perceptions of their comfort level of working with individuals with intellectual disabilities. Individuals described as "special needs" are a diverse group, not limited to disability of an intellectual nature.

Implications for Future Practice

The purpose of the study was to evaluate the degree to which a university program designed to assist students with intellectual disabilities successfully transition from high school to adulthood impacted undergraduate students' perceptions of individuals with intellectual disabilities and their personal comfort level of working with these individuals. The current study has demonstrated how postsecondary higher education programs for individuals with intellectual disabilities can benefit individuals without intellectual disabilities. Results from this study confirm that, by providing opportunities for individuals without intellectual disabilities to attend postsecondary programs on university campuses along with individuals with intellectual disabilities, the contact between both parties will enhance the experience gained by the individual without intellectual disabilities. The perceptions and attitudes will be positively changed for individuals without intellectual disabilities after interacting with individuals with intellectual disabilities.

Research exists on the importance of postsecondary higher education programs for individuals with intellectual disabilities. Think College (n.d.), a national organization, is dedicated to growing and improving higher education opportunities for individuals with intellectual disabilities. Think College is a research-based organization and supports evidence-based practices while encouraging opportunities for individuals with intellectual disabilities to attend postsecondary higher education programs. Think College also provides online resources for individuals with intellectual disabilities, families, and postsecondary programs. According to a study conducted by Prohn, Kelley, and Westling (2018), individuals with intellectual disabilities demonstrated greater independence after one year of participation in higher education and required less daily support.

Universities should be encouraged to pursue offering postsecondary programs for individuals with intellectual disabilities based on the positive impact the program can have on the perceptions and attitudes of students without intellectual disabilities toward individuals with intellectual disabilities, therefore increasing students' opportunities for success after graduation. The professional literature is clear that programs for individuals with intellectual disabilities on college campuses is beneficial to individuals with intellectual disabilities. The results of this study would appear to provide support for the benefit that a program for individuals with intellectual disabilities on college campuses can have on the campus population without intellectual disabilities in the areas of perception and attitude.

Recommendations for Future Research

Although this study contributes to the existing body of research, an expansive opportunity for future research within this topic exists, especially as the number of university programs for individuals with intellectual disabilities expands. Positive perceptions of

individuals without intellectual disabilities toward individuals with intellectual disabilities was shown by the findings in the study; however, the study of additional university programs for individuals with intellectual disabilities could validate findings and further generalize findings to a larger student population. The study of additional university programs for individuals with intellectual disabilities could include various university sizes, both public and private institutions, as well as various locations across the United States. Additionally, a qualitative or mixed-methods study could be designed to obtain further depth regarding the posed research questions. Focus groups and interviews could be added to include additional depth to the topic of evaluating how a university's program to assist students with intellectual disabilities make a transition from high school to adulthood impacts undergraduate students' perceptions of individuals with intellectual disabilities and undergraduate students' personal comfort level of working with individuals with intellectual disabilities enrolled on a college campus.

Conclusion

Students with intellectual disabilities, their families, and P-12 teachers, together, are required to provide stated goals for the student with intellectual disabilities in the areas of independent living, education, and employment beginning several years before the student exits high school, as required by the Individuals with Disabilities Education Improvement Act of 2004 (IDEA, 2004). The development of these goals often requires difficult decisions and conversations regarding the reality of what the future options may or may not include for the student and their family. Since the implementation of the Higher Education Opportunity Act of 2008, which provides opportunities for individuals with intellectual disabilities to attend postsecondary higher education programs, professional literature discusses the benefits in the

areas of independent living, education, and the employment of individuals with intellectual disabilities attending postsecondary education programs.

This study adds to the growing body of research that advocates for postsecondary higher education programs for individuals with intellectual disabilities, but for different reasons than most of the professional literature describes. As stated previously, findings from O'Connor, Kubiak, Espiner, and O'Brien's (2012) study was summarized in saying that the inclusion of individuals with intellectual disabilities in courses with undergraduate students without disabilities was a positive experience for all students involved in the course.

Having CCL [postsecondary program for individuals with disabilities] students in the class enabled this learning to be more immediate and keenly experienced. Such examples reveal the positive impact made by the CCL students' refreshing openness and insightful learning, which lecturers [faculty members] believed served as role models for other undergraduate students in their classes. (O'Connor et al., 2012, p. 252)

The purpose of the present study was not to study the impact a program for individuals with intellectual disabilities can have on individuals with intellectual disabilities, but rather the impact a program for individuals with intellectual disabilities can have on the attitudes and perceptions of individuals without intellectual disabilities. Results from this study confirm that, although other studies have shown that postsecondary higher education programs for individuals with intellectual disabilities are beneficial for those with intellectual disabilities, these programs are also beneficial to individuals without intellectual disabilities that are attending the same university and have contact with the program. Universities should be encouraged to pursue offering postsecondary programs for individuals with intellectual disabilities based on the positive impact that the program can have on the perceptions and attitudes of students without

intellectual disabilities toward individuals with intellectual disabilities. The self-efficacy of working with individuals with intellectual disabilities, increases opportunities for success in the areas of independent living, academics, and employment, for all students both with and without intellectual disabilities.

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Appendix A

Survey for Undergraduate Students without Special Needs:

How a University's Program for Special Needs College Students Impacts

Undergraduate Student Perceptions and Attitudes

Directions: Please complete this survey with answers reflecting your experience(s) and involvement with a university's program to assist special needs college students.

How long have you been involved with your university's program to assist students with intellectual disabilities?

Less than one semester

One semester

Two semesters

Three semesters

Four semesters

Longer than four semesters

In what capacity have you been involved in your university's program to assist students with intellectual disabilities? (Choose all that apply)

Peer Mentor Program

Organized Campus Activities

In each of the following statements, please respond using the rating scale below:

1- Strongly Disagree 2- Disagree 3- Uncertain 4- Agree 5- Strongly Agree

1. As a result of participating in my university's program for individuals with intellectual disabilities, my ability to engage individuals with intellectual disabilities in conversation has increased.

1- Strongly Disagree 2- Disagree 3- Uncertain 4- Agree 5- Strongly Agree

2. As a result of participating in my university's program, my ability to nurture individuals with intellectual disabilities who are experiencing emotional crises has increased.

1- Strongly Disagree 2- Disagree 3- Uncertain 4- Agree 5- Strongly Agree

3. As a result of participating in my university's program for individuals with intellectual disabilities, my ability to effectively address the academic needs of individuals with intellectual disabilities has increased.

1- Strongly Disagree 2- Disagree 3- Uncertain 4- Agree 5- Strongly Agree

4. As a result of participating in my university's program for individuals with intellectual disabilities, my ability to establish rapport with individuals with intellectual disabilities has improved.

1- Strongly Disagree 2- Disagree 3- Uncertain 4- Agree 5- Strongly Agree

5. As a result of participating in my university's program for individuals with intellectual disabilities, my ability to address the self-esteem issues of individuals with intellectual disabilities has increased.

1- Strongly Disagree 2- Disagree 3- Uncertain 4- Agree 5- Strongly Agree

6. As a result of participating in my university's program for individuals with intellectual disabilities, my ability to redirect instances of inappropriate behavior in individuals with intellectual disabilities has increased.

1- Strongly Disagree 2- Disagree 3- Uncertain 4- Agree 5- Strongly Agree

7. As a result of participating in my university's program for individuals with intellectual disabilities, my ability to teach or model prosocial skills to individuals with intellectual disabilities has increased.

1- Strongly Disagree 2- Disagree 3- Uncertain 4- Agree 5- Strongly Agree

8. As a result of participating in my university's program for individuals with intellectual disabilities, my attitude in general toward individuals with intellectual disabilities has become more positive.

1- Strongly Disagree 2- Disagree 3- Uncertain 4- Agree 5- Strongly Agree

9. As a result of participating in my university's program for individuals with intellectual disabilities, my acceptance of individuals with intellectual disabilities, regardless of their disability, has become more positive.

1- Strongly Disagree 2- Disagree 3- Uncertain 4- Agree 5- Strongly Agree

10. As a result of participating in my university's program for individuals with intellectual disabilities, my motivation to engage with individuals with intellectual disabilities regardless of environmental setting has increased.

1- Strongly Disagree 2- Disagree 3- Uncertain 4- Agree 5- Strongly Agree

11. As a result of participating in my university's program for individuals with intellectual disabilities, my perceptions of the capabilities of individuals with intellectual disabilities has increased.

1- Strongly Disagree 2- Disagree 3- Uncertain 4- Agree 5- Strongly Agree

12. As a result of participating in my university's program for individuals with intellectual disabilities, my attitude toward individuals with intellectual disabilities, and their ability to participate in typical activities of community life has increased.

1- Strongly Disagree 2- Disagree 3- Uncertain 4- Agree 5- Strongly Agree

13. How would you describe your involvement with the university's program for individuals with intellectual disabilities?

14. What have been your takeaways, or what have you learned, from having the university's program for individuals with intellectual disabilities on campus?

