

A QUALITATIVE CASE STUDY INVESTIGATING THE GRADUATION AND JOB
PLACEMENT OUTCOMES OF COLLEGE STUDENTS WITH AUTISM SPECTRUM
DISORDER: IMPLICATIONS FOR HIGHER EDUCATION LEADERS

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Doctor of Education

by

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The undersigned, appointed by the dean of the Graduate School, have examined the dissertation entitled

A QUALITATIVE CASE STUDY INVESTIGATING THE GRADUATION AND JOB
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presented by Natalie Trent Bruce,

a candidate for the degree of doctor of education,

and hereby certify that, in their opinion, it is worthy of acceptance.

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DEDICATION

To my dad, Dr. Glenn W. Trent, D.C.

(August 27, 1948 – November 28, 2012),

who called me “Dr. Natalie Trent” since I was a little girl.

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By

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ABSTRACT

The purpose of this qualitative case study was to investigate the policies, procedures, and programs in place to encourage the graduation and job placement of college students with Autism Spectrum Disorder (ASD). Data collection took place at Open Enrollment Midwestern University, a pseudonym, through document analysis and interviews. Document analysis focused on the policies relevant to students admitted with disabilities, specifically ASD. Interviews were held with current students with ASD, and administrators, faculty, and staff who directly or indirectly work with students with disabilities, specifically ASD. While most findings included data relevant to college students with disabilities in general, the primary focus was on college students with ASD. Prior studies are few and focus on the increase in the population of college students with ASD paired with the lack of services. A gap in research exists among the policies, procedures, and programs that may or may not be in place to ensure the graduation and job placement of college students with ASD. This study's findings revealed a lack of policies, procedures, and programs that encourage the graduation and job placement of college students with disabilities in general, including ASD. Findings also examine Project Stay, a federally funded program on college campuses that is exceeding their goals of graduating at-risk students, including students with disabilities such as ASD.

CHAPTER ONE

INTRODUCTION TO THE STUDY

Background

Samuel was diagnosed with Autism Spectrum Disorder in elementary school. As a result, he was enrolled in primarily special education classes throughout school and had an Individualized Education Program on file. Samuel was a diligent student and graduated from high school with a competitive GPA. His dream was to be the first person in his family to graduate from college. While Samuel did not meet admission criteria at the local university, he learned that admission criteria was waved for applicants when they reach the age of 21. The semester after his 21st birthday, Samuel enrolled in college as a psychology major.

According to the American Psychiatric Association (APA), developmental disorders include Autistic Disorder, Rett's Disorder, Childhood Disintegrative Disorder, Asperger's Disorder, and Pervasive Developmental Disorder Not Otherwise Specified (2000). For the purpose of this research, Autistic Disorder and Asperger's Syndrome was the main focus. Autism Spectrum Disorder (ASD) is characterized by impairments in social interaction and communication (Van Bergeijk, Klin, & Volkmar, 2008), in addition to difficulty understanding emotions and restricted behaviors and interests (Fombonne & Chakrabarti, 2001).

Today, approximately 1 in 88 children, or more than 1% of U.S. children, are currently diagnosed with ASD (Centers for Disease Control, 2012). The prevalence of individuals affected by Asperger's Syndrome is nearly double the number of individuals with classic autism (Van Bergeijk & Shtayermann, 2005). Due to the high prevalence of

individuals with Asperger's Syndrome, more attention has been focused on the needs of this population, and only recently has the needs of this population transitioning into college been examined (Dente & Coles, 2012).

Early diagnosis and prevention enables many young people to consider postsecondary education (Van Bergeijk et al., 2008). As a result of the Individuals with Disabilities Education Act (IDEA), children with ASD are entitled to accommodating services through the public school system (Van Bergeijk et al., 2008). As a greater number of children are receiving a high school education, these individuals are gaining an interest in and preparing for college (Van Bergeijk et al., 2008). Open enrollment institutions along with advocates of individuals with disabilities have increased the number of individuals with developmental disabilities entering college. Since the development of the Americans with Disabilities Act (ADA) in 1990, individuals with developmental disabilities have had increased access to opportunities related to education and work (Dolyniuk, Kamens, Corman, & DiNardo, 2002).

Several colleges and universities in the United States have implemented policies, procedures, and programs specifically for students with developmental disabilities. However, despite inclusive initiatives, an estimated 50-75% of individuals with developmental disabilities are unemployed (Howlin, Goode, Hutton, & Rutter, 2004; Hurlbutt & Chalmers, 2004; Mawhood, Howlin, & Rutter, 2000). The stigma related to individuals with developmental disabilities paired with a lack of preparedness may be contributing to this high unemployment rate. These individuals may need assistance with job searching, the application process, resume writing, and interviewing (Van Bergeijk et

al., 2008). With proper preparation to leave the university setting and enter a specific job, college graduates with ASD can become productive members of the workforce.

Individuals with ASD have more opportunities than ever before to obtain higher education (Nevill & White, 2011). Due to the ADA and open enrollment universities, the dream of attending a traditional university is becoming a reality for many individuals with developmental disabilities. These institutions may not have the resources necessary to meet the needs of the students they are admitting. Students with developmental disabilities have access to disability services, but these services may not be meeting their needs. The likelihood that these students graduate and find degree related employment is unknown.

Conceptual Underpinnings for the Study

The researcher framed the study using ableism to explain the social and cultural production of ability contributing to disability policies, procedures, and programs in higher education institutions (Hutcheon & Wolbring, 2012). The concept of ableism emerged from the Disabled People's Rights Movement (Wolbring, 2008), focusing on ability instead of disability (Campbell, 2009; Wolbring, 2008). Ableism is a form of discrimination against individuals with disabilities that is characterized by the belief that these individuals are broken or need to be fixed (Castaneda & Peters, 2000), instead of viewing them as diverse members of society.

To better serve students with disabilities, including students with ASD, an understanding of the impacts of higher education policy on the lives of individuals with diverse abilities is rendered (Hutcheon & Wolbring, 2012). The presence of diverse language regarding ability in higher education policies, procedures, and programs is

sometimes lacking because of the more recent rise in this population of students (Smith, Foley, & Chaney, 2008). Using ableism as a conceptual framework allows for better understanding of how individuals who lack certain abilities are characterized and exploration of higher education policymakers responses (Hutcheon & Wolbring, 2012).

The researcher framed observations of policy through the ableism lens, listening for language implying a focus on the ability of each admitted student, rather than disability. Framing policy through ableism helped the researcher better understand how students with disabilities are viewed and responded to (Hutcheon & Wolbring, 2012). This presented the possibility that disabled students are viewed as *not normal* therefore, they may not reap the benefits of many student policies, procedures, and programs.

University policies regarding students with disabilities lays the framework for procedures related to these students. The researcher framed observations of procedures through the ableism lens, listening for accessibility and ease of navigation. Students with disabilities report that asking for accommodations is not always an easy process (Hutcheon & Wolbring, 2012). Clearly communicating procedures and making obtaining accommodations and services an easy process would play to the strengths of students with disabilities instead of hindering their process.

University policies and procedures regarding students with disabilities lay the framework for programs available to these students. The researcher framed observations of programs through the ableism lens, listening for diversity of options meeting a wide variety of needs. Diversity in program availability allows for students to pick and choose depending on their needs and interests. The nondisabled students are often the ones being accommodated in program availability (Hutcheon & Wolbring, 2012).

In summary, the researcher used the ableism lens to frame observations of the policies, procedures, and programs in place that encourage the outcomes of students with ASD. Each component in place lays the framework for the component that follows. The researcher was seeking to understand how policymakers view and respond to students with disabilities.

Statement of the Problem

Students with disabilities in the K-12 setting are met with voluntary testing, support, and accommodations. IDEA mandates that schools provide multidisciplinary teams that work with students toward meeting their academic goals (Hadley, Twale, & Evans, 2003). These teams are usually comprised of the student, parents, teachers, school counselors, and administration. From kindergarten through high school, the public school system is extremely accommodating and takes primary responsibility for ensuring that all students' needs are met. The school district is responsible for the evaluation and identification of a disability, setting up an individual education program (IEP) for students with disabilities, and making modifications as needed throughout the years (Gil, 2007). In addition, parents serve as the primary advocates for their child with a disability (Gil, 2007).

IDEA does not apply to higher education. IEPs and any accommodations that a student was receiving in K-12 do not carry over to the university setting. Instead, higher education adheres to the Americans with Disabilities Act (ADA) (Hadley, 2007) and the Association on Higher Education and Disability (AHEAD) (Smith, 2007).

The ADA mandates that students with disabilities are provided equal access to educational programs (Gil, 2007). In addition, many university disability support

services adhere to an organization called AHEAD. It proposes accommodations for students with disabilities such as extended time on tests, alternate testing sites, peer support, assistance with registration and financial aid, and assistance with study skills and time management (Smith, 2007). However, these are only suggestions. There are no laws that state what reasonable accommodations should be, only that accommodations be made for students with disabilities (Smith, 2007). Ultimately, the decision lies with the institution's disability support services (Smith, 2007). Therefore, there is gray area when it comes to accommodations which can vary from institution to institution.

In addition, higher education adheres to the Family Educational Rights and Privacy Act (FERPA) (Dente & Coles, 2012). This act essentially protects the private and educational information of anyone over the age of 18. Therefore, universities can only speak to the students and no one else about their academic record, including financial aid, registration, and academic progress or struggles. At the college level, the students are their own advocate for academic success. They must self-identify and provide the required documentation to be eligible for accommodations (Gil, 2007). They are responsible for notifying each faculty member of their approved accommodations (Gil, 2007). The students no longer have a provided multidisciplinary team that advocates for their success, and parents are no longer in the information loop.

Where many intervention programs for individuals with ASD target children and adolescents, rarely do intervention programs focus on adults on the spectrum (Nevill & White, 2011). While the opportunity for students with ASD to attend college has increased in recent years, little research has focused on the planning and organization of support services for this population (Brinckerhoff, McGuire, & Shaw, 2002). This may

be partially due to a more recent rise in individuals with ASD attending college. In addition, little research has been done on the connection between individuals with ASD attending college and graduation outcomes, such as graduation related employment. A challenge facing higher education disability professionals is ensuring appropriate supports and services are provided to students with disabilities (Shaw & Dukes, 2005).

A recent report found that 11% of undergraduate students reported having some form of a disability, the majority of which attended a four-year public institution (Horn & Nevill, 2006). Today, approximately 1 in 88 children, or more than 1% of U.S. children, are currently diagnosed with ASD (Centers for Disease Control, 2012). While still limited, the research on this population of students with disabilities is on the rise as this population continues to grow and the likelihood of these students entering college increases.

Few studies have investigated the postgraduate outcomes of college students with disabilities in general (Madaus, Foley, & McGuire, 2002), let alone with ASD. According to Dowrick, Anderson, Heyer, & Acoster (2005), only 12% of students with disabilities graduate from college. There is no known report on students with ASD. While higher education institutions are striving to be more inclusive to individuals with disabilities and provide accommodations that adhere to ADA, the current challenge lies in how to best serve students with disabilities so that they may be successful in attaining a college education (Sweener, Kundert, and May, 2002).

A lack of successful outcomes may be due to information barriers or the unavailability or inadequacy of support services to serve this growing population (Dowrick et al., 2005; Stodden & Conway, 2003). Due to communication barriers that

are central to the disabilities associated with ASD, these students may not be asking for available accommodations or may not know how to access these services (Getzel, 2005; Gil, 2007).

While evidence exists that the number of students with ASD entering college is on the rise, further research was required regarding the policies, procedures, and programs necessary to ensure graduation and job placement among these students. Students with ASD require a range of academic and supportive accommodations to ensure their success in college and the transition beyond (Glennon, 2001). Prior studies are few and focus on the increase in the population of college students with ASD paired with the lack of services. A gap in research exists among the policies, procedures, and programs that may or may not be in place to ensure the graduation and job placement of college students with ASD.

Purpose of the Study

The purpose of this case study was to investigate the policies, procedures, and programs in place to encourage the graduation and job placement of college students with ASD. Data collection took place at Open Enrollment Midwestern University, a pseudonym, through document analysis and interviews. Document analysis focused on the policies relevant to students admitted with disabilities, specifically ASD. Interviews were held with current students with ASD, and administrators, faculty, and staff who directly or indirectly work with students with disabilities, specifically ASD. Interviews were held on an individual basis, taking place on the campus of Open Enrollment Midwestern University. The researcher interviewed 18 individuals.

This study focused primarily on college students with ASD at one open enrollment higher education institution. While most findings included data relevant to college students with disabilities in general, the primary focus was on college students with ASD. The researcher investigated the policies, procedures, and programs in place to encourage the graduation and job placement of college students with ASD. Job placement was generally defined as post-graduation employment related to the degree obtained from the higher education institution.

Research Questions

The guiding research questions for this study were:

1. What policies are in place at Open Enrollment Midwestern University to encourage the graduation and job placement of students with Autism Spectrum Disorder?
2. What procedures are in place at Open Enrollment Midwestern University to encourage the graduation and job placement of students with Autism Spectrum Disorder?
3. What programs are in place at Open Enrollment Midwestern University to encourage the graduation and job placement of students with Autism Spectrum Disorder?

Limitations and Assumptions

This qualitative case study provided an in-depth examination of the policies, procedures, and programs in place to encourage the graduation and job placement of college students with ASD at one specific open enrollment higher education institution. The results were limited by setting, population sample, and researcher bias. Researcher

assumptions that biased the study include prior experience with college students with ASD and the institution being studied. As purported by Creswell (2009), the researcher was aware of these biases and reduced the influence of bias through participant review of data and triangulation of data.

Limitations

This research was limited in generalizability due to the case study design. While open enrollment higher education institutions of similar size and demographic may benefit from this study, this case study examined the policies, procedures, and programs of only one open enrollment higher education institution. The results of the study should not be generalized to all open enrollment higher education institutions.

In addition, while the focus of this study was on students with ASD, the policies, procedures, and programs examined were intended for students with disabilities in general. It is not common for policies, procedures, and programs to be written specifically for students with ASD. While the number of students with ASD attending college are on the rise, a small institution such as Open Enrollment Midwestern University does not have a population of students with ASD large enough to render specific policies, procedures, and programs.

An underlying limitation in regards to bias on the part of the researcher was that students with developmental disabilities, including students with ASD, may be admitted into higher education institutions without these institutions providing the necessary support and resources that enable success. The researcher previously worked at an open enrollment institution that, in the researcher's opinion, lacked the support and resources for the students who were being admitted. The researcher worked in a counseling and

advising setting with numerous students with developmental disabilities, including ASD. While these students were admitted into the institution, graduation and job placement were rare due to a lack of support and resources once the student was admitted. Experiences such as these impacted the researcher's bias regarding support and resources provided to students with developmental disabilities at the university level, as well as the success of students with ASD in higher education institutions.

Another bias existed due to the fact the researcher is a prior employee of the institution studied. Prior knowledge of policies, procedures, and programs for students with developmental disabilities, including students with ASD, impacted the researcher's bias regarding data collected at this research site. The researcher controlled this bias by practicing credibility when analyzing data.

Assumptions

The researcher approached this study from a critical paradigm, examining the structures that have an impact on the life chances of individuals based on race, gender, or social class (Hatch, 2002). In this case, the life chances of individuals with disabilities, specifically individuals with ASD, were examined in the post-secondary educational setting. According to Hatch (2002), the researcher's biases had the potential to impact observations. Understanding these biases and self-disclosing increased awareness and reduced the likelihood observations were biased.

The researcher believed that while institutions are becoming more diverse through ADA mandates, higher education institutions may not be properly prepared with knowledge, staff, and resources to meet the needs of college students with ASD. The researcher's bias was students with ASD are being admitted into higher education

institutions, but they are not graduating and obtaining degree-related employment.

Higher education institutions appear to be inclusive at the forefront, but they are actually doing individuals with ASD a disservice by wasting their time and money on an educational experience that does not have the resources to produce success.

While this was an assumption held by the researcher, this assumption was communicated to participants, especially participants with ASD. Care was taken to not exploit research participants by using their vulnerabilities to create agreement with the researcher's assumptions (Hatch, 2002).

Definition of Key Terms

Developmental Disabilities. Developmental Disabilities is defined as a group of conditions due to an impairment in physical, learning, language, or behavioral areas (Centers for Disease Control, 2012). Developmental disabilities may take effect at any time throughout development and usually persist throughout the lifespan (Centers for Disease Control, 2012).

Autism Spectrum Disorder (ASD). Autism Spectrum Disorder (ASD) is a group of developmental disabilities that include Autistic Disorder, Asperger's Syndrome, and Pervasive Developmental Disorder-Not Otherwise Specified (Centers for Disease Control, 2012). ASD is characterized by impairments in social interaction and communication, in addition to restricted behaviors and interests (American Psychiatric Association, 2000).

Asperger's Syndrome. Asperger's Syndrome is a developmental disorder within the autism spectrum that reflects milder symptoms of Autism, such as social interaction and narrow interests (Centers for Disease Control, 2012).

Graduation. Graduation is generally defined as meeting all requirements of undergraduate coursework, as mandated by the awarding higher education institution.

Job placement. Job placement is generally defined as post-graduation employment related to the degree obtained from the higher education institution.

Open enrollment institution. Open enrollment institution is defined as a higher education institution admitting at least 95% of applicants. Admission requirements in less selective higher education institutions are sometimes waived once an applicant has reached at least 21 years of age. The least selective higher education institutions have open admission policies that admit every student who applies (*Princeton Review*, 2011).

Policies. Policies are generally defined as the official written documentation mandated by the higher education institution pertaining to students with ASD in regards to admission, services offered and received, and outcomes.

Procedures. Procedures are generally defined as the tracking and measuring of higher education students with ASD in regards to admission, services offered and received, and outcomes.

Programs. Programs include social skills training, academic training, individualized advising, and employability training such as interview skills, resume building, and job exploration.

Significance of the Study

This study contributed to the academic literature and knowledge related to individuals with ASD attending college. A clear gap existed in outcomes. Research on college students with disabilities is on the rise as the likelihood of students with disabilities attending college increases (National Center for Education Statistics, 2003);

however, further research was required regarding the policies, procedures, and programs necessary to ensure graduation and job placement among these students. Nearly one-fourth of college students with disabilities report not receiving the appropriate accommodations needed to be academically successful (NCES, 2003).

This research informs best practices regarding policies, procedures, and programs for open enrollment or less selective higher education institutions that are experiencing a rise in their population of students with ASD. I also better informs individuals with ASD when deciding which higher education institution can best meet their needs, increase the likelihood that individuals with ASD attend mainstream open enrollment institutions, and be successful in degree attainment and post-graduation job placement. Parties who may be interested in this research may include open enrollment higher education institutions, individuals with ASD, family members and advocates of individuals with ASD, and individuals with developmental disabilities in general.

This study offers suggestions for faculty training to enhance universal design in the classroom setting. In addition, this study contributes offerings of policies, programs, and procedures to transition students with ASD into the university setting and ultimately graduate to enter the workforce. Knowledge gained from this study's literature review helped the researcher understand the specific needs of college students with ASD as described by Smith (2007). Data collected through the interviews and document analysis helped the researcher understand how to integrate universal design into the policies, procedures, and programs that encourage the graduation and job placement of students with ASD.

Summary

Individuals with ASD have more opportunities than ever before to obtain higher education (Nevill & White, 2011). However, higher education institutions may not have the policies, procedures, and programs in place to encourage the graduation and job placement of these special needs individuals. The purpose of this case study was to investigate the policies, procedures, and programs in place to encourage the graduation and job placement of college students with ASD. Data collection took place at Open Enrollment Midwestern University, through document analysis and interviews.

The researcher framed the study using ableism to understand the social and cultural production of ability contributing to disability policies, procedures, and programs in higher education institutions (Hutcheon & Wolbring, 2012). The researcher approached this study from a critical paradigm, examining the structures that have an impact on the life chances of individuals based on race, gender, or social class (Hatch, 2002). In this case the life chances of individuals with disabilities, specifically individuals with ASD, were examined in the post-secondary educational setting.

This research informs and improves services offered at the college level to students with ASD. It better informs individuals with ASD when deciding which higher education institution can best meet their needs. It may also increase the likelihood that individuals with ASD attend mainstream open enrollment institutions, and be successful in degree attainment and post-graduation job placement.

The following chapters provide literature review, research design and methodology, research findings, discussion of findings, and conclusions for this study on the policies, procedures, and programs that encourage graduation and job placement of

students with ASD at Open Enrollment Midwestern University. Chapter Two provides an extensive review of the most current literature available on the topic of ASD, specifically related to higher education. Chapter Three provides a detailed description of the design of the study, including the study's participants, methods of data collection, and methods of data analysis. Chapter Four presents the findings of the study, and Chapter Five discusses the findings of the study along with conclusions and implications for future research. Appendices include interview protocols, interview informed consent, and document analysis guide.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction

The following chapter will provide an up-to-date literature review pertaining to college students with Autism Spectrum Disorder (ASD). This review in literature will illustrate a clear gap in research on this specific population, specifically related to outcomes. Literature is plentiful on the topic of children and adolescence with ASD, but it is limited when looking beyond high school. While many intervention programs for individuals with ASD target children and adolescence, rarely do intervention programs focus on adults along the spectrum (Nevill & White, 2011). In addition, the bulk of literature focuses on more severe forms of ASD; little information exists on young adults exhibiting milder forms of ASD (Van Bergeijk et al., 2008).

When research has focused beyond high school, it most commonly focuses on entering the job market or transitioning into college. Upon initial investigation, many college programs for individuals with ASD are segregated from traditional college curriculum. Many programs for college students with developmental disabilities are segregated from the traditional campus or are specialized institutions of their own (Dolyniuk et al., 2002). Acceptance into these programs is often limited to few students, based on application and interview.

When literature revealed studies related to the college arena, research on students with disabilities in general were most common, followed by students with learning disabilities, followed by students with developmental disabilities, and finally a small amount of research specifically looked at college students with ASD. Literature

concerning Asperger's Syndrome in postsecondary education is slowly increasing; however, most research continues to focus on students with physical and psychiatric disabilities (Grossman, 2001). Few studies discuss students with Autism Spectrum; therefore, best practices for working with college students with Asperger's Syndrome have not been identified (Smith, 2007).

While research on accommodations related to students with disabilities is plentiful, the gap in research related to students with ASD also presents a gap in best practices for working with these students and producing outcomes. Many institutions continue to accommodate students with ASD as they accommodate students with any other disability (Smith, 2007). These accommodations, however, do not take into consideration the specific needs of individuals with ASD (Smith, 2007). Such accommodations must be tailored to the individual needs of each student, as ASD can present itself in many different ways, but generally a student would need extra assistance in communicating with faculty and adjusting to change (Smith, 2007).

Despite limited research, the specific issue of students with ASD is a relevant one, particularly related to outcomes. Today, approximately 1 in 88 children, or more than 1% of U.S. children, are currently diagnosed with ASD (Centers for Disease Control, 2012). The prevalence of individuals affected by Asperger's Syndrome is nearly double the number of individuals with classic autism (Van Bergeijk & Shtayermann, 2005). As childhood cases of ASD increase, the possibility of young adults with ASD potentially preparing to enter college also increases. Fombonne (2003) estimated that in 2002 there were between 284,000 and 486,000 individuals along the spectrum under the age of 20 years old.

A clear gap in research lies with outcomes. Few studies have investigated the postgraduate outcomes of college students with disabilities in general (Madaus et al., 2002), let alone with ASD. According to Dowrick et al. (2005), only 12% of students with disabilities graduate from college. There is no known report on students with ASD. While higher education institutions are striving to be more inclusive to individuals with disabilities and provide accommodations that adhere to ADA, the current challenge lies in how to best serve students with disabilities so they may be successful in attaining a college education (Sweener et al., 2002).

The focus of this chapter is to provide a review of literature illustrating the connection between individuals with ASD and their college experience and outcomes. The chapter begins with a brief discussion of the diagnostic criteria and prevalence of Autistic Disorder and Asperger's Syndrome. The researcher will then present existing findings related to the legal background of educational accessibility and an in-depth look at students with ASD in the college arena, including the services and policies offered by universities and faculty perceptions. The literature on graduation outcomes of individuals with ASD will be presented. Finally, universal design as a specific framework inspired by ableism will be presented as a possible reaction to the increased college population presenting with ASD.

Diagnostic Criteria

According to the American Psychiatric Association (APA), developmental disorders are characterized by impairment in several areas of development including social interaction, communication skills, and limited behavior, interests, and activities (2000). Developmental disorders include Autistic Disorder, Rett's Disorder, Childhood

Disintegrative Disorder, Asperger's Disorder, and Pervasive Developmental Disorder Not Otherwise Specified (APA, 2000). For the purpose of this research, Autistic Disorder and Asperger's Syndrome was the main focus.

According to the Centers for Disease Control (CDC), ASD includes Autistic Disorder, Asperger's Syndrome, and Pervasive Developmental Disorder—Not Otherwise Specified (2012). ASDs are spectrum disorders, which means that individuals are affected in different ways and can range from mild to severe (CDC, 2012). While ASDs are characterized by impairment in social interaction, communication skills, and limited behaviors and interests, there are individual differences in severity and the exact nature of symptoms (CDC, 2012).

Autistic Disorder

Autistic Disorder is characterized by abnormal or impaired development in social interaction and communication paired with restricted interests and activities (APA, 2000). Abnormal nonverbal communication may include a lack of eye contact or socially unacceptable body postures and gestures (APA, 2000). Verbal communication may be limited by an inability to initiate or sustain a conversation or repetitive talk. While adults may have an interest in forming friendships and other relationships, they may lack understanding of appropriate and acceptable social interaction (APA, 2000).

Individuals with Autistic Disorder may have difficulty understanding simple questions or directions (APA, 2000). Communication may also be hindered by a lack of understanding of humor, irony, or implied meaning (APA, 2000). Their limited interests and activities often result in an intense preoccupation with one or more activities (APA,

2000). Behavior is sometimes inflexible, insisting on specific routines or rituals (APA, 2000).

Autistic Disorder has an early onset of age three years or prior (APA, 2000). Mental Retardation presents itself in up to 70% of autism cases (Fombonne & Chakrabarti, 2001). According to the APA (2000), only a small percentage of individuals with Autistic Disorder live and work independently as adults. High functioning adults with Autistic Disorder continue to exhibit limitations in social interaction, communication, interests, and activities (APA, 2000).

Asperger's Syndrome

Individuals with Asperger's Syndrome usually exhibit milder symptoms of Autistic Disorder (CDC, 2012). While characterized by abnormal or impaired development in social interaction and communication paired with restricted interests and activities, individuals with Asperger's Syndrome do not usually present with Mental Retardation or language delays (APA, 2000). In fact, while students with Asperger's Syndrome are often thought of as odd or eccentric, many have an average or above average IQ and possibly are gifted in one area, which make them likely to pursue college (Hughes, 2009). The prognosis of Asperger's Syndrome is significantly better than in Autistic Disorder. According to the APA (2000), many individuals with Asperger's Syndrome are capable of independence and employment.

Pervasive Developmental Disorder—Not Otherwise Specified

Individuals who meet some of the criteria for Autistic Disorder or Asperger's Syndrome, but do not meet all diagnostic criteria, may be diagnosed with Pervasive Developmental Disorder—Not Otherwise Specified (CDC, 2012). This diagnosis should

be used when an individual exhibits abnormal or impaired development in social interaction and communication or restricted interests and activities, yet not enough to meet the criteria for Autistic Disorder or Asperger's Syndrome (APA, 2000). An example of this would be "atypical autism", where onset is later in life and/or has symptoms that are not typical to Autism Disorder (APA, 2000). Individuals with Pervasive Developmental Disorder—Not Otherwise Specified usually present with milder symptoms than individuals with other ASDs, commonly only effecting social and communication skills (CDC, 2012).

Co-morbidity is a common issue in individuals with ASD, the most common being anxiety and depression (Ghaziuddin, 2002). In young adults, anxiety may be common due to the fast paced transitions and changes that are occurring in their lives, and depression may be a result of their interpretation of recurrent failure (Klin, Pauls, Schultz, & Volkmar, 2005). According to Ghaziuddin (2002), rates of co-morbid anxiety and/or depression in individuals with Asperger's Syndrome is as high as 65%.

Prevalence

Today, approximately 1 in 88 children, or more than 1% of U.S. children, are currently diagnosed with ASD (CDC, 2012). The prevalence of individuals affected by Asperger's Syndrome is nearly double the number of individuals with classic autism (Van Bergeijk & Shtayermann, 2005). Due to the high prevalence of individuals with Asperger's Syndrome, more attention has been on focused on the needs of this population, and only recently has the needs of this population transitioning into college been examined (Dente & Coles, 2012).

The lack of research on individuals with Asperger's Syndrome may be due to the fact that it is only 30 years old in the United States (Ozonoff, Dawson, & McPartland, 2002). Literature concerning Asperger's Syndrome in postsecondary education is slowly increasing; however, most research continues to focus on students with physical and psychiatric disabilities (Grossman, 2001). Few studies discuss students with Asperger's Syndrome; therefore, best practices for working with college students with Asperger's Syndrome have not been identified (Smith, 2007).

There is currently no known cure for ASD; however, intervention treatments can help reduce symptoms (CDC, 2012). While the exact cause of ASD has not been pinpointed, several factors have been identified that may contribute to a child acquiring ASD (CDC, 2012). These include genetic factors related to heredity or chromosomal disorders, and environmental factors related to vaccinations and prescription drugs (CDC, 2012). A notable statistic in a possible risk factor for ASD lies in infant exposure to the measles, mumps, and rubella (MMR) vaccinations after a significant increase in ASD diagnoses in the 1980s during a time of increased immunizations (Johnson & Carter, 2011). According to Dales, Hammer, and Smith (2001), in 1994, MMR vaccines increased by 10%, which correlated with a 373% increase in ASD prevalence rates.

The CDC is currently investigating additional risk factors related to genetic, environmental, pregnancy, and behavioral factors (CDC, 2012). The increase in reported cases is unclear. Explanations range from an actual increase in the disorder, to an increased awareness of the diagnosis and the changes in the definition, which broadened the diagnostic criteria to include higher and lower functioning individuals (Johnson & Carter, 2011; Fombonne, 2003).

In summary, the diagnostic criteria for ASDs including Autistic Disorder, Asperger's Syndrome, and Pervasive Developmental Disorder—Not Otherwise Specified have been provided. Prevalence, including potential risk factors and treatments, have been provided. The legal implications regarding educational accessibility to this population of student will now be provided.

The Laws

Times of transition are critical times to individuals with ASD (Van Bergeijk et al., 2008), due to their difficulty handling change. According to Van Bergeijk et al., without proper preparation, students with ASD would struggle significantly worse than typical students when transitioning to college (2008). Students need to be aware of the differences between the legislation governing services provided in the K-12 setting and the legislation governing accommodations provided in higher education (Hamblet, 2009).

K-12 Legislation

Students with disabilities in the K-12 setting are met with voluntary testing, support, and accommodations. IDEA mandates that schools provide multidisciplinary teams that work with students toward meeting their academic goals (Hadley et al., 2003). These teams are usually comprised of the student, parents, teachers, school counselors, and administration. From kindergarten through high school, the public school system is extremely accommodating and takes primary responsibility for ensuring that all students' needs are met. The school district is responsible for the evaluating and identifying a disability, setting up an individual education program (IEP) for students with disabilities, and making modifications as needed throughout the years (Gil, 2007). In addition, parents serve as the primary advocates for their child with a disability (Gil, 2007).

Higher Education Legislation

IDEA does not apply to higher education. IEPs and any accommodations that a student was receiving in K-12 does not carry over to the university setting. Instead, higher education adheres to the ADA (Hadley, 2007) and the Association on Higher Education and Disability (AHEAD) (Smith, 2007). Although the ADA provides a legal route for students with disabilities to take advantage of if they were discriminated against or not granted their rights (Eckes & Ochoa, 2005), differences of interpretation of rights granted by the ADA make legality difficult (Tagayuna, Stodden, Chang, Zeleznik, & Whelley, 2005).

The ADA mandates that students with disabilities are provided equal access to educational programs (Gil, 2007). In addition, many university disability support services adhere to an organization called AHEAD. It proposes accommodations for students with disabilities such as extended time on tests, alternate testing sites, peer support, assistance with registration and financial aid, and assistance with study skills and time management (Smith, 2007). However, these are only suggestions. There are no laws that state what reasonable accommodations should be, only that accommodations be made for students with disabilities (Smith, 2007). Ultimately, the decision lies with the institution's disability support services (Smith, 2007). Therefore, there is much gray area when it comes to accommodations and can vary from institution to institution.

In addition, higher education adheres to the Family Educational Rights and Privacy Act (FERPA) (Dente & Coles, 2012). This essentially protects the private and educational information of anyone over the age of 18. Therefore, universities can only

speak to the students about their academic record, including financial aid, registration, and academic progress or struggles.

At the college level, the students are their own advocate for academic success. They must self-identify and provide the required documentation to be eligible for accommodations (Gil, 2007). The students are responsible for notifying each faculty member of their approved accommodations (Gil, 2007). The students no longer have a provided multidisciplinary team that advocates for their success, and parents are no longer in the information loop.

In summary, students with disabilities and their parents face a shift in responsibility as they move from the K-12 legislation to higher education legislation. The K-12 arena, governed by IDEA, meets the student with voluntary support. The school system takes responsibility for meeting the students' needs. The higher education arena, adhering to the ADA and AHEAD, provides accommodations only when requested by the student and approved by the institution.

Individuals with Autism Spectrum Disorder Entering College

Most programs for college students with developmental disabilities are segregated from the traditional campus or are specialized institutions of their own (Dolyniuk et al., 2002). Acceptance into these programs is often limited to few students, based on application and interview. This individualized attention provides thorough training in academics, life skills, and employability; however, according to Dolyniuk et al. (2002), this segregation neglects an important component for the success of individuals with developmental disabilities: social skills. A lack of social skills may not only hinder employment opportunities due to poor interview skills, it could also disqualify these

individuals that are otherwise qualified due to the fact that many professions require employees to interact at a high level with patrons.

Since the development of the ADA and IDEA, individuals with developmental disabilities have had increased access to opportunities related to education and work (Dolyniuk et al., 2002). However, the increase in students with learning disabilities attending postsecondary education has been influenced by college enrollment and admission policies as well. Open enrollment admissions policies at higher education institutions, in response to the shrinking pool of eligible students, has led to more accessibility to higher education for students with disabilities (Mangrum & Strichart, 1988).

President Barack Obama suggested that the United States increase the number of college graduates by 8 million by the year 2020, noting that the country has fallen from number 1 to number 12 in college graduation rates in a single generation (Korbel, McGuire, Banerjee, & Saunders, 2011). Many higher education institutions are actively recruiting students with disabilities as a source of revenue to maintain or increase enrollments (Mangrum & Strichart, 1988). This paired with the desire of students with disabilities to attend college, and the laws that encourage students with disabilities to attend college, has greatly increased the population of students with disabilities in the college classroom.

To be competitive in the current job market, it is becoming increasingly important for individuals to obtain a college education, including individuals with disabilities (Gil, 2007). A recent report found that 11% of undergraduate students reported having some form of a disability, the majority of which attended a four-year public institution (Horn &

Nevill, 2006). The types of disabilities that are presenting themselves in the college sector have changed dramatically and now include students with psychiatric disorders, chronic health conditions, autism spectrum disorders, and severe food and environmental allergies (U.S. Government Accountability Office, 2009). These students will have different needs and goals and may benefit from employment training and other services not traditionally provided by universities (Korbel et al., 2011).

As childhood cases of ASD increase, the possibility of young adults with ASD potentially preparing to enter college also increases. Fombonne (2003) estimated that in 2002 there were between 284,000 and 486,000 individuals along the spectrum under the age of 20 years old. Early diagnosis and prevention enables many of these young people to consider postsecondary education (Van Bergeijk et al., 2008). As a result of IDEA, children with ASD are entitled to accommodating services through the public school system (Van Bergeijk et al., 2008). As a greater number of children are receiving a high school education, these individuals are gaining an interest in and preparing for college (Van Bergeijk et al., 2008).

Individuals with ASD have more opportunities than ever before to obtain higher education (Nevill & White, 2011). In 2010, the United States Department of Education began a 5-year funding program to 27 postsecondary institutions across the United States called Transition Programs for Students with Intellectual Disabilities (TPSID). This program provided \$10.9 million dollars for the 2010-2011 fiscal year through the Free Application to Federal Student Aid (FAFSA). It provides opportunities to students with cognitive disabilities, including ASD, to attend college and have access to academia,

social activities, employment training, and an independent living environment (Glickman, 2010).

Tactics have been suggested to properly prepare individuals with ASD as they transition into the college setting. Transition assistance is especially imperative to students with ASD due to their difficulty handling change (APA, 2000). One tactic could include orienting high school students with ASD to college courses by introducing one or two courses from the local community college as dual credit during their junior and senior years (Van Bergeijk et al., 2008). This can slowly expose them to the social and academic rigor of a college environment (Van Bergeijk et al., 2008). These courses should be chosen by the students and highlight their strengths, therefore maximizing their chances for success (Van Bergeijk et al., 2008).

Another tactic includes choosing the higher education institution that is the “best fit” in regards to the student’s needs and the services offered. According to Hadley (2007), students with learning disabilities should choose a college or university that provides the services they need. In addition to the traditional four year institution, some individuals with ASD may want to consider first transitioning into a community college. In general, community colleges often have a smaller population, smaller class size, and provide more individualized attention to students (Perner, 2003). Many students with ASD struggle with navigating through large campuses and may find a smaller school to be less overwhelming (Moreno, 2005). However, it should also be noted smaller schools may increase one’s visibility of being different (Perner, 2003), where larger schools may provide more diversity and services that cater to diversity (Adreon & Durocher, 2007).

Whether a student chooses a smaller community college or a larger four year institution should be based upon how supportive the college is of people with different abilities (Van Bergeijk et al., 2008). A college's diversity statement should include its commitment to serving students with varying degrees of abilities and disabilities (Van Bergeijk et al., 2008). Statistics can be obtained from the disability support office regarding the number and variation of students with disabilities on campus (Van Bergeijk et al., 2008).

As can be expected, students with ASD may experience feelings of frustration as they transition from the accommodations of K-12 to higher education. ASD is characterized by difficulty adjusting to change (APA, 2000), and these students are faced with many changes ranging from unfamiliar surroundings to new rules. According to Mellard (2005), many students with disabilities are not emotionally prepared to handle the rigor of college course work.

Students with disabilities experience more barriers while attending college than students without disabilities (Pingry O'Neill, Markward, & French, 2012). Specifically, they are more likely to struggle with study skills, testing, note-taking, comprehension, organization skills, social skills, self-esteem, reading, and writing (Trainin & Swanson, 2005). In addition, they have concerns about their instructors' ability to provide accommodations to meet their needs (Pingry O'Neill et al., 2012). Barriers such as these sometimes decrease a student's willingness to advocate for themselves (Junco, 2002).

The best way that universities can support students with disabilities is to provide them with the appropriate accommodations needed to move them toward the successful completion of courses and onto graduation (Pingry O'Neill et al., 2012). Many higher

education institutions have a resource center of some kind for students with disabilities. However, few have programs for the more severely developmentally disabled that integrate these students into the traditional college experience. In fact, a startling statistic reported by Harbour (2004) stated that over 80% of postsecondary disability services report needing information about best practices.

In summary, the combination of higher education institutions actively recruiting students with disabilities as a source of revenue to maintain or increase enrollments (Mangrum & Strichart, 1988) paired with the desire of students with disabilities to attend college and the laws that encourage students with disabilities to attend college has greatly increased the population of students with disabilities in the college classroom. There are educational options for students with disabilities, including specialized institutions (Dolyniuk et al., 2002), community colleges, and traditional four year institutions. Students with learning disabilities should choose a college or university that provides the services that they need (Hadley, 2007).

University Services and Policies

Once a student with a disability has been admitted and determined eligible for services, that student has a legal right to receive academic accommodations (Sweener et al., 2002). Accommodations may include extending time for the degree completion, substituting or waiving specific course requirements, modifying course instruction, and allowing alternative testing procedures such as extended test time or testing in a distraction free environment (Sweener et al., 2002). Most higher education institutions have a disability support office with tutors that are available to assist with studying (Dente & Coles, 2012).

While disability support services can vary from institution to institutions, there are many services that are somewhat common and available if sought out by the student. Some institutions even offer an orientation specifically for students with disabilities to alleviate some of the fears of transitioning to college (Garrison-Wade & Lehmann, 2009). New student orientation programs can pair with the disabilities support office to help students with disabilities acclimate to their new college environment and ensure that students are aware of the services and accommodations available to them and how to access them (Hadley, 2007).

Common accommodations for students with disabilities include extended time on tests, alternate testing sites, tutoring, assistance with registration and financial aid, flexibility with assignments and test dates, note taking services, and assistance with study skills and time management (Smith, 2007; Pingry O'Neill et al., 2012). A concern regarding financial aid lies the fact that financial aid is often based on a traditional four-year college experience (Garrison-Wade, 2012). Students with disabilities often have modified semester schedules and take longer to graduate due to taking remedial prerequisite courses or retaking courses (Garrison-Wade, 2012). This poses a policy question for financial aid at the government level as well as the institutional level. While services and accommodations such as these commonly exist, students are not always aware of their availability or how to access them (Getzel, 2005; Gil, 2007).

There are many other accommodations that may be helpful for students with ASD that are not necessarily required by the ADA and may be beyond the scope of what a typical university is willing to provide (Adreon & Durocher, 2007)). These may include additional advisement with selecting courses (Williams & Palmer, 2004), course

exemptions or course substitutions, exemption from group work, the option to take oral exams instead of written exams, flexibility with assignment due dates, and flexibility with class scheduling (Willey, 2000).

The main characteristic of ASD is social skill issues, and the failure of a university to provide social support would hinder the success of these students (Van Bergeijk et al., 2008). When universities do not provide support related to building social skills to students with ASD it excludes them from being successful in postsecondary academia, which is the main focus of universities (Van Bergeijk et al., 2008). Therefore, to fully be in compliance with the ADA, universities must provide support for social difficulties in addition to academic difficulties to this populations (Van Bergeijk et al., 2008).

However, higher education institutions are often not prepared to address non-academic concerns such as socializing, performing life skills, doing laundry, budgeting, using a checkbook, or getting along with roommates (Van Bergeijk et al., 2008). Furthermore, a common issue for students with ASD is related to their sexuality. These students often need support related to sexual education that is developmentally appropriate (Van Bergeijk et al., 2008) and counseling and or health services that can discuss with them some of the changes their body has undergone and hormonal reactions. In addition to supportive services on campus, Van Bergeijk et al. (2008) suggested utilizing peer groups or group counseling to address issues of socialization.

Recent research has actually shown that assistive technology, classroom assistants, and note taking services decrease the likelihood of graduation among students with disabilities (Pingry O'Neill et al., 2012). It should be noted that this is because

students who qualify for additional accommodations such as those listed above most likely have more significant disabilities, and therefore they are less likely to graduate (Pingry O'Neill et al., 2012). It is necessary for disability services offices to work closely with these students and provide any extra support needed to succeed in higher education (Pingry O'Neill et al., 2012).

In addition to transition issues common to all students entering college, individuals with disabilities experience a sudden shift in responsibility from parents and educators to the students themselves (Garrison-Wade, 2012). The students are now responsible for seeking out assistance, self-disclosing their disability, obtaining the required documentation, and advocating for their success every step of the way. This transition can be especially difficult for students with ASD. Poor social skills and communication characterize individuals with ASD (APA, 2000). Therefore, the first step in advocating for themselves can be the most difficult step. Seeking assistance and communicating what is necessary for success may be difficult for an individual with ASD.

Hadley (2007) reported that students with disabilities found it necessary to continue using supportive services in their higher education experience. These students reported that they had grown dependent on the support services that had been available to them in the K-12 setting, and they did not know how they could be successful without them in the college setting (Hadley, 2007). They felt the accommodations and services available were essential to their ability to handle course work (Hadley, 2007). They expressed the importance of a single service on campus where they could take exams, have individualized tutoring, and collect notes from their classes (Hadley, 2007).

A specific challenge that students with learning disabilities experienced in college was writing, and they often felt that services were limited and the amount of accommodations were not sufficient for them to meet college writing expectations (Hadley, 2007). Students reported that college writing centers are often staffed by students instead of learning disabilities professionals (Hadley, 2007). Research shows that relying on peer help in general negatively impacts a student's experience with accommodations. First, it may be embarrassing for students to receive assistance from peers and possibly have to self-disclose their disability to a potential classmate. Second, the quality and accuracy of assistance from a peer may be lacking in quality compared to a teaching assistant, paid staff member, or professor (Pingry O'Neill et al., 2008).

Students on the autism spectrum require individualized, explicit, directive guidance counseling (Van Bergeijk et al., 2008). This may also include personal counseling regarding emotion management, transition issues, relational issues, and sex education (Van Bergeijk et al., 2008). Organizational help may also be necessary as these students learn to organize classroom and study material, notes, assignments, syllabi, etc (Van Bergeijk et al., 2008). Large assignments may need to be broken down into smaller, more manageable assignments. Students may need help with life skills such as money management, self-care, and getting along with roommates (Van Bergeijk et al., 2008). Faculty are also important partners with disability services in meeting the needs of students with disabilities (Shaw & Dukes, 2005).

Individuals with ASD require a range of academic and supportive accommodations to ensure their success in college and the transition beyond (Glennon, 2001). This may render collaboration between multiple campus services such as

guidance counseling/advising, mental health counseling, residence life, campus health department, tutoring services, and faculty. The disability office would coordinate these services for students, serving as an advocate for issues regarding students with disabilities (Shaw & Dukes, 2005).

In a time that requires more efficient use of resources, implementing a collaborative approach among student affairs units has been strongly recommended when working with students with disabilities (Korbel et al., 2011). One tactic lies in the admissions process. Collaboration between the disability services office, the admissions office, the financial aid office, orientation, and public relations is essential to inclusion in the admissions process (Korbel et al., 2011). Throughout the college experience, it is essential for disability services to educate all student affairs entities of accommodation policies, universal design principles, and legal mandates (Korbel et al., 2011). Academic advisors should be familiar with institutional policies that relate to students with disabilities, such as reduced course load or course substitutions (Korbel et al., 2011).

Just as the transition into the college setting requires planning and collaboration, so does transitioning into employment or graduate school (Korbel et al., 2011). Academic departments can work with career services to plan informational sessions on job searching and internships to ensure goodness of fit (Korbel et al., 2011). Effective academic advising and career planning ensures that deadlines are met, exit requirements are completed, and any applications, exams, or other requirements for employment or graduate school are completed (Korbel et al., 2011).

While many intervention programs for individuals with ASD target children and adolescence, rarely do intervention programs focus on adults on the spectrum (Nevill &

White, 2011). Nearly one-fourth of college students with disabilities report not receiving the appropriate accommodations needed to be academically successful (NCES, 2003). While the opportunity for students with ASD to attend college has increased in recent years, little research has focused on the planning and organization of support services for this population (Brinckerhoff et al., 2002). A challenge facing higher education disability professionals is ensuring that appropriate supports and services are provided (Shaw & Dukes, 2005).

In summary, many institutions continue to accommodate students with ASD as they accommodate students with any other disability (Smith, 2007). These accommodations, however, do not take into the consideration the specific needs of individuals with ASD (Smith, 2007). These may include additional advisement with selecting courses (Williams & Palmer, 2004), course exemptions or course substitutions, exemption from group work, the option to take oral exams instead of written exams, flexibility with assignment due dates, and flexibility with class scheduling (Willey, 2000). In addition, higher education institutions are often not prepared to address non-academic concerns such as organizational help, relational issues, sex education, transition issues, socializing, life skills, doing laundry, budgeting, using a checkbook, or getting along with roommates (Van Bergeijk et al., 2008).

Faculty Perceptions

Another obstacle that students with disabilities face is the perceptions of their faculty regarding their disability and accommodations. According to Dona and Edminster (2001), faculty have little understanding of ADA and a student's rights to accommodations at the university setting. Students with disabilities may experience

challenges from faculty such as negative attitudes regarding students with disabilities (Garrison-Wade & Lehmann, 2007; Mellard, 2005), misconceptions about their skills and abilities (Kochhar-Bryant, Bassett, & Webb, 2009), and a general lack of sensitivity (Burgstahler, Crawford, & Acosta, 2001; Garrison-Wade & Lehmann, 2007).

Faculty perceptions can come in two forms: the perceptions of faculty regarding students with disabilities and their accommodations, and the students' perceptions of their faculty's response to their disability and accommodations. Houck, Asselin, Troutman, and Arrington (1992) found that student and faculty perceptions did not always correlate. They noted that faculty perceive themselves as more willing to make accommodations than students who have sought out these accommodations perceive them to be (Houck et al., 1992). Some students perceived faculty as having negative attitudes because of unwillingness to accommodate students (Garrison-Wade, 2012).

Previous studies on faculty perception of students with disabilities have found a lack of understanding and cooperation in the classroom. This could be attributed to many factors such as time constraint, workload, concern for academic integrity, or a lack of understanding and education. Some faculty are concerned that large teaching loads and other institutional time constraints limit their ability to properly provide accommodations (Satcher, 1992). They also expressed concern regarding hindering academic integrity by providing accommodations. Many faculty may be unwilling to acknowledge a student's disability, and may even believe that students with disabilities that effect their learning should not be allowed to attend college (Putnam, 1984).

Some negative perceptions on the part of faculty may be due to a lack of information or education on the topic of students with disabilities. Findings suggest that

some faculty had negative attitudes toward students with disabilities because they lacked understanding of their needs and rights to accommodations and other supportive services (Burgstahler et al., 2001). Many higher education institutions are now providing faculty, staff, and student training regarding student diversity so students feel that their campus community is inclusive. For students specifically with ASD, Smith (2007) stated that faculty education is extremely important in ensuring that faculty understand how students with ASD are most likely to succeed in the classroom.

More recent research has found that faculty report a neutral level of comfort providing accommodations for students with disabilities (Sweener et al., 2002). This could be in response to the calls of action expressed by previous research. An increase in diversity training and inclusion policies may be positively effecting the perceptions of faculty toward their students with disabilities.

In summary, faculty have little understanding of ADA and a student's rights to accommodations at the university setting (Dona & Edminster, 2001). Students with disabilities may experience challenges from faculty such as negative attitudes regarding students with disabilities (Garrison-Wade & Lehmann, 2007; Mellard, 2005), misconceptions about their skills and abilities (Kochhar-Bryant et al., 2009), and a general lack of sensitivity (Burgstahler et al., 2001; Garrison-Wade & Lehmann, 2007). Findings suggest that some faculty had negative attitudes toward students with disabilities because they lacked understanding of their needs and rights to accommodations and other supportive services (Burgstahler et al., 2001).

Outcomes of College Students with Autism Spectrum Disorder

Research on college students with disabilities is on the rise as the likelihood of students with disabilities attending college increases (NCES, 2003). However, a research gap lies with outcomes, as there is currently no known report on the percentage of college graduates with ASD. While still limited, the research on this population of students with disabilities is on the rise as this population continues to grow and the likelihood of these students entering college increases.

Graduation

While the number of college students with learning disabilities is on the rise, there is growing concern about their retention and degree attainment (Hadley, 2007). The National Council on Disability (2003) noted that while students with disabilities have gained access to higher education, concern lies with retention. Despite an increase in enrollment among students with disabilities, many of these students do not graduate and instead leave college early (Quick, Lehmann, & Deniston, 2003). There is no known report on students with ASD.

Few studies have investigated the postgraduate outcomes of college students with disabilities in general (Madaus et al., 2002), let alone with ASD. According to Dowrick et al. (2005), only 12% of students with disabilities graduate from college. While higher education institutions are striving to be more inclusive to individuals with disabilities and provide accommodations that adhere to ADA, the current challenge lies in how to best serve students with disabilities so that they may be successful in attaining a college education (Sweener et al., 2002).

Among students with disabilities, females and students age 23 years and older are more likely to graduate than male and younger students (Pingry O'Neill et al., 2012). In addition, there are many more female graduate students with disabilities than male graduate students with disabilities (National Center for Education Statistics, 2010). Research on the success of college students with disabilities indicates that self-awareness, self-determination and advocacy, self-management, adequate preparation for college, and assistance technology are key indicators for success (Garrison-Wade, 2012).

Jorgensen, Fichten, Havel, Lamb, James, and Barile (2005) studied outcomes of students with disabilities in a Canadian college over a 12-year period and found that students who took lighter course loads earned the same grades and had the same graduation rates as students without disabilities. In addition, course substitutions specifically in the area of foreign language positively contributed to higher graduation rates (Skinner, 2004).

Many theories exist as to why students with developmental disabilities do not succeed in higher education (Lechtenberger, Brak, Sokolosky, & McCrary, 2012). One theory is a lack of institutional understanding and acceptance of students with developmental disabilities, specifically from administration and faculty (Rocco, 2002). Another theory highlights the fact that many college students with disabilities are not utilizing the services they are entitled to, either by not seeking them out or seeking them out too late (Barnard-Brak, Sulak, Tate, & Lechtenberger, 2010).

A study by Wagner, Newman, Cameto, Garza, and Levine (2005) revealed that two thirds of postsecondary students with disabilities were not receiving accommodations because they had not self-disclosed that they were a student with a disability. In addition,

nearly half of these students did not consider themselves to have a disability, even though they had received accommodations in their K-12 experience (Wagner et al., 2005).

Others classified themselves as having a disability, but they chose not to disclose (Wagner et al., 2005).

While 11% of undergraduate students reported having some form of a disability (Horn & Nevill, 2006), only 1-3% actually request accommodations (Hartman, 1993).

This may be due to fear of discrimination or a desire to leave their disability behind and be more independent in college (Barnard-Brak, Lan, & Lechtenberger, 2010). In

addition, for the first time the students are their own advocate for academic success.

They must self-identify and provide the required documentation to be eligible for accommodations (Gil, 2007). The students are responsible for notifying each faculty member of their approved accommodations (Gil, 2007). The students no longer have a provided multidisciplinary team that advocates for their success, and parents are no longer in the information loop.

Common accommodations for students with disabilities include extended time on tests, alternate testing sites, peer support, assistance with registration and financial aid, and assistance with study skills and time management (Smith, 2007). A lack of successful outcomes may be due to information barriers or the unavailability or inadequacy of support services to serve this growing population (Dowrick et al., 2005; Stodden & Conway, 2003). Due to communication barriers that are central to the disabilities associated with ASD, these students may not be asking for available accommodations or may not know how to access these services (Getzel, 2005; Gil, 2007).

Job Placement

According to Van Bergeijk et al. (2008), the role of higher education institutions is to prepare students to become productive members of the workforce. Individuals with ASD are a group that often experience difficulty finding a job, and if found, experience difficulty maintaining that job. Therefore, these individuals report high rates of unemployment and underemployment (Bolman, 2008; Howlin et al., 2004). While many individuals with ASD have the ability and reported desire to work (Garcia-Villamizar, Ross, & Wehman, 2000; Garcia-Villamizar, Wehman, & Navarro, 2002; Wehman, Datlow Smith, & Schall, 2009), an estimated 50-75% of these individuals are unemployed (Howlin et al., 2004; Hurlbutt & Chalmers, 2004; Mawhood et al., 2000). A recent study reported that many jobs held by individuals with ASD were only a few hours a week, menial, and often supervised (Eaves & Ho, 2008).

In contrast, the U.S. Department of Labor Statistics reported that 89% of college graduates between the ages of 25 and 34 are employed. The remaining 11% attend graduate school, enter the military, or work in the home (Dohm & Wyatt, 2002). In order for individuals with ASD to enter the workforce, explicit preparation is crucial. These individuals may need assistance with job searching, the application process, resume writing, and interviewing (Van Bergeijk et al., 2008). Some individuals with ASD report the need for job coaching specifically in the area of social interaction (Muller, Schuler, Burton, & Yates, 2003). Previous research has revealed that knowledge of a disability may hinder the employer from granting an interview (Pearson, Ip, Hui, Yip, Ho, & Lo, 2003); however, properly timed disclosure of disability status can allow the employer to make proper accommodations (Munir, Jones, Leka, & Griffiths, 2005).

Individuals with ASD work best in highly structured, predictable, and routinized jobs (Van Bergeijk et al., 2008). They should seek jobs that focus on their area of strength. With proper preparation to leave the university setting and enter a specific job, college graduates with ASD can become productive members of the workforce.

Universal Design

The concept of ableism emerged from the Disabled People's Rights Movement (Wolbring, 2008), focusing on ability instead of disability (Campbell, 2009; Wolbring, 2008). Ableism is a form of discrimination against individuals with disabilities that is characterized by the belief that these individuals are broken or need to be fixed (Castaneda & Peters, 2000), instead of viewing them as diverse members of society. To better serve students with disabilities, including students with ASD, an understanding of the impacts of higher education policy on the lives of individuals with diverse abilities is rendered (Hutcheon & Wolbring, 2012). The presence of diverse language regarding ability in higher education policies, procedures, and programs is sometimes lacking because of the more recent rise in this population of student (Smith, Foley, & Chaney, 2008). Using ableism as a conceptual framework allows for better understanding of how individuals that lack certain abilities are characterized and to explore the responses by policymakers in higher education (Hutcheon & Wolbring, 2012).

In the university setting, the responsibility is placed on the students to initiate and maintain accommodations on their own behalf (Hutcheon & Wolbring, 2012). Instead of being proactive, the institution relies on the individual to self-identify and provide documentation, therefore taking the passive and reactive stance if a student were to struggle (Kraus, 2008). University language pertaining to disability services and

accommodations often have a burdensome and obligatory tone (Hutcheon & Wolbring, 2012). Language such as this sets this population apart from the “normal” and often requires individuals with disabilities to fight for their rights that are guaranteed by law (Devlin & Pothier, 2006)

Universal design is a social concept that has emerged out of the medical model of viewing individuals with disabilities as having a deficiency or defect that sets them apart from others (Wolanin & Steele, 2004). Instead of providing assistance to fix what is wrong with the individual, universal design strives to make products and environments usable by all people, without the need for adaptation or accommodation (Center for Universal Design, 2008). Universal design initially focused on physical architecture, such as providing ramps, sliding doors, and low curbs for individuals with physical disabilities to have access to more facilities (Center for Universal Design, 2008). However, this has now extended into the instructional environment (Scott, McGuire, & Foley, 2003).

Universal design strives to make educational campuses welcoming, accessible, and usable for all people (Burgstahler, 2008). This is done through anticipating diversity and intentionally designing instruction and services with that diversity in mind (Korbel et al., 2011). Universal design suggests that students with disabilities may not need disability services in an educationally accessible environment because it anticipates the needs of diverse learners and offers a curriculum that is more accessible to different forms of learning (Scott, McGuire, & Shaw, 2003).

An example of this would be offering all course material online for further study, and exams that do not have time limitations or are completed electronically (McGuire,

Scott, & Shaw, 2006). This encourages self-determination because students are given options that they may select based on their personal learning style (Field, Sarver, & Shaw, 2003). Smith (2007) explained the importance of accommodating the individual, not the disability. Her research in the field of Asperger's Syndrome found that accommodations for other disabilities will not always work for students with Asperger's Syndrome. A unique disability requires the need for unique accommodations just as unique accommodations must be made for all individual students (Smith, 2007).

Summary

ASD includes Autistic Disorder, Asperger's Syndrome, and Pervasive Developmental Disorder—Not Otherwise Specified (CDC, 2012). While ASDs are characterized by impairment in social interaction, communication skills, and limited behaviors and interests, there are individual differences in severity and the exact nature of symptoms (CDC, 2012). Today, approximately 1 in 88 children, or more than 1% of U.S. children, are currently diagnosed with ASD (CDC, 2012). The prevalence of individuals affected by Asperger's Syndrome is nearly double the number of individuals with classic autism (Van Bergeijk & Shtayermann, 2005).

Students with disabilities in the K-12 setting are met with voluntary testing, support, and accommodations. IDEA mandates that schools provide multidisciplinary teams that work with students toward meeting their academic goals (Hadley et al., 2003). IDEA does not apply to higher education. Instead, higher education adheres to the Americans with Disabilities Act (ADA) (Hadley, 2007). The ADA mandates that students with disabilities are provided equal access to educational programs (Gil, 2007). Although the ADA provides a legal route for students with disabilities to take advantage

of if they were discriminated against or not granted their rights (Eckes & Ochoa, 2005), differences of interpretation of rights granted by the ADA make legality difficult (Tagayuna et al., 2005).

Many higher education institutions are actively recruiting students with disabilities as a source of revenue to maintain or increase enrollments (Mangrum & Strichart, 1988). This paired with the desire of students with disabilities to attend college, and the laws that encourage students with disabilities to attend college, has greatly increased the population of students with disabilities in the college classroom. Early diagnosis and prevention enables many of these young people to consider postsecondary education (Van Bergeijk et al., 2008).

While disability support services can vary from institution to institution, there are many services that are somewhat common and available if sought out by the student. There are many other accommodations that may be helpful for students with ASD that are not necessarily required by the ADA and may be beyond the scope of what a typical university is willing to provide (Adreon & Durocher, 2007). Many institutions continue to accommodate students with ASD as they accommodate students with any other disability (Smith, 2007). These accommodations, however, do not take into the consideration the specific needs of individuals with ASD (Smith, 2007).

A clear gap in research lies with outcomes. While the number of college students with learning disabilities is on the rise, there is growing concern about their retention and degree attainment (Hadley, 2007). Few studies have investigated the postgraduate outcomes of college students with disabilities in general (Madaus et al., 2002), let alone with ASD. According to Dowrick et al. (2005), only 12% of students with disabilities

graduate from college. One reason for this may be that while 11% of undergraduate students reported having some form of a disability (Horn & Nevill, 2006), only 1-3% actually request accommodations (Hartman, 1993). Students with ASD require a range of academic and supportive accommodations to ensure their success in college and the transition beyond (Glennon, 2001).

Individuals with ASD are a group that often experience difficulty finding a job, and if found, they experience difficulty maintaining that job. Therefore, these individuals report high rates of unemployment and underemployment (Bolman, 2008; Howlin et al., 2004). In order for individuals with ASD to enter the workforce, explicit preparation is crucial. These individuals may need assistance with job searching, the application process, resume writing, and interviewing (Van Bergeijk et al., 2008).

Universal design is a social concept that has emerged out of the medical model of viewing individuals with disabilities as having a deficiency or defect that sets them apart from others (Wolanin & Steele, 2004). Instead of providing assistance to fix what is wrong with the individual, universal design strives to make products and environments usable by all people, without the need for adaptation or accommodation (Center for Universal Design, 2008). Universal design strives to make educational campuses welcoming, accessible, and usable for all people (Burgstahler, 2008). This is done through anticipating diversity and intentionally designing instruction and services with that diversity in mind (Korbel et al., 2011). Universal design suggests that students with disabilities may not need disability services in an educationally accessible environment because it anticipates the needs of diverse learners and offers a curriculum that is more accessible to different forms of learning (Scott et al., 2003).

The following chapters provide research design and methodology, research findings, discussion of findings, and conclusions for this study on the policies, procedures, and programs that encourage graduation and job placement of students with ASD at Open Enrollment Midwestern University. Chapter Three provides a detailed description of the design of the study, including the study's participants, methods of data collection, and methods of data analysis. Chapter Four presents the findings of the study, and Chapter Five discusses the findings of the study along with conclusions and implications for future research. Appendices include interview protocols, interview informed consent, and document analysis guide.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

Introduction

Since the development of the Americans with Disabilities Act (ADA) and Individuals with Disabilities Education Act (IDEA), individuals with developmental disabilities have had increased access to opportunities related to education and work (Dolyniuk et al., 2002). However, the increase in students with learning disabilities attending postsecondary education has been influenced by college enrollment and admission policies as well. Open enrollment admissions policies at higher education institutions, in response to the shrinking pool of eligible students, has led to more accessibility to higher education for students with disabilities (Mangrum & Strichart, 1988). Many higher education institutions are actively recruiting students with disabilities as a source of revenue to maintain or increase enrollments (Mangrum & Strichart, 1988). This paired with the desire of students with disabilities to attend college and the laws that encourage students with disabilities to attend college has greatly increased the population of students with disabilities in the college classroom.

Individuals with Autism Spectrum Disorder (ASD) have more opportunities than ever before to obtain higher education (Nevill & White, 2011). As childhood cases of ASD increase, the possibility of young adults with ASD potentially preparing to enter college also increases. Fombonne (2003) estimated that in 2002 there were between 284,000 and 486,000 individuals along the spectrum under the age of 20 years old. Early diagnosis and prevention enables many of these young people to consider postsecondary education (Van Bergeijk et al., 2008).

While the opportunity for students with ASD to attend college has increased in recent years, little research has focused on the planning and organization of support services for this population (Brinckerhoff et al., 2002). A challenge facing higher education disability professionals is ensuring that appropriate supports and services are provided (Shaw & Dukes, 2005). In fact, a startling statistic reported by Harbour (2004) revealed over 80% of postsecondary disability services report needing information about best practices. Many institutions continue to accommodate students with ASD as they accommodate students with any other disability (Smith, 2007). These accommodations, however, do not take into consideration the specific needs of individuals with ASD (Smith, 2007).

While the number of college students with learning disabilities is on the rise, there is growing concern about their retention and degree attainment (Hadley, 2007). Few studies have investigated the postgraduate outcomes of college students with disabilities in general (Madaus et al., 2002), let alone with ASD. According to Dowrick et al. (2005), only 12% of students with disabilities graduate from college.

Individuals with ASD are a group that often experience difficulty finding a job, and if found, they experience difficulty maintaining that job. Therefore, these individuals report high rates of unemployment and underemployment (Bolman, 2008; Howlin et al., 2004). In order for individuals with ASD to enter the workforce, explicit preparation is crucial. These individuals may need assistance with job searching, the application process, resume writing, and interviewing (Van Bergeijk et al., 2008).

While evidence exists that the number of students with ASD entering college is on the rise, further research is required regarding the policies, procedures, and programs

necessary to ensure graduation and job placement among these students. Students with ASD require a range of academic and supportive accommodations to ensure their success in college and the transition beyond (Glennon, 2001). Prior studies are few and focus on the increase in the population of college students with ASD paired with the lack of services. A gap in research exists among the policies, procedures, and programs that may or may not be in place to ensure the graduation and job placement of college students with ASD.

The researcher will begin with listing the research questions that guided the case study of one open enrollment Midwestern higher education institution. The design for the study will then be presented in detail, including the participants and sampling procedures, data collection procedures, and the protection to human subjects and other ethical considerations. Finally, the researcher will describe the data analysis procedures, being cognizant of positionality and trustworthiness. The purpose of this case study was to investigate the policies, procedures, and programs in place to encourage the graduation and job placement of college students with ASD.

Research Questions

Within the context of the study, the following research questions were addressed:

1. What policies are in place at Open Enrollment Midwestern University to encourage the graduation and job placement of students with Autism Spectrum Disorder?
2. What procedures are in place at Open Enrollment Midwestern University to encourage the graduation and job placement of students with Autism Spectrum Disorder?

3. What programs are in place at Open Enrollment Midwestern University to encourage the graduation and job placement of students with Autism Spectrum Disorder?

Design for the Study

The researcher conducted a policy analysis on the admission and retention of students with ASD, in addition to a program evaluation related to the procedures in place toward the graduation and job placement of students with ASD. The researcher's choice of design was a qualitative case study (Creswell, 2009), which was conducted on one Midwestern open enrollment higher education institution. The researcher studied Open Enrollment Midwestern University, as the researcher's previous insider status rendered knowledge of this institution and connections with administration and staff that was conducive to collecting thick and rich data.

Participants

The data collection method used was document analysis and interviews. The sample was selective and convenience based (Hatch, 2002). The sample was selective in that the policies selected for analysis and the individuals selected for interview were directly related to the admission and retention of students with developmental disabilities, specifically ASD. The sample was convenient based on the researcher's previous employment and knowledge of the institution, administration, and staff.

Identification of Participants

The target population from which participants were recruited include the administration, faculty, and staff at Open Enrollment Midwestern University. These individuals consisted of those that directly work with students with developmental

disabilities, specifically students with ASD, and influence the policies, procedures, and programs related to students with developmental disabilities, specifically students with ASD. Students with ASD who attend Open Enrollment Midwestern University were also included as participants in this study. The intent of including this population was to collect their perceptions of the policies, procedures, and programs that encourage their graduation and job placement.

Individual interview participants. The intention for the interviews was to collect information regarding the policies, procedures, and programs that encourage the graduation and job placement of individuals with ASD. The researcher conducted 18 interviews, including the Director of Admissions and the Vice President of Academic Affairs (who oversees the Admissions Department) regarding the admission policies and processes of students with disabilities, specifically students with ASD. The researcher also interviewed the Director of the Student Success Center (which houses Disability Services and tutoring), the Coordinator of Disability Services, and the Vice President of Student Affairs (who oversees the Student Success Center) regarding the policies, programs, and procedures that encourage graduation and job placement throughout the student's college career.

Interview participants that added to the qualitative data related to retention and success procedures and programs for admitted individuals with developmental disabilities, specifically students with ASD, included academic advisors and mental health counselors from Advising, Counseling, and Testing Services. The researcher also interviewed the Director of the First-Year Experience Program in regards to the

orientation and transition services that are available to individuals with developmental disabilities, specifically students with ASD.

In addition, the researcher interviewed students with ASD to collect qualitative data on their perception of their experience with policies, procedures, and programs as a college student with ASD at Open Enrollment Midwestern University. The Director of the Student Success Center served as the gatekeeper for the researcher to gain access to these students for an interview.

Lastly, the researcher interviewed faculty and staff at Open Enrollment Midwestern University to collect qualitative data on their perception of policies, procedures, and programs for students with developmental disabilities, specifically ASD. Students with ASD require a range of academic and supportive accommodations to ensure their success in college and the transition beyond (Glennon, 2001). This may render collaboration between multiple campus services such as guidance counseling/advising, mental health counseling, residence life, campus health department, tutoring services, and faculty. Faculty are important partners with disability services in meeting the needs of students with disabilities (Shaw & Dukes, 2005). The Director of the Student Success Center served as the gatekeeper for the researcher to gain access to certain faculty and staff who work with students with ASD.

This qualitative study had an emerging design. According to Creswell (2009), details of the research plan may have been altered once the researcher began collecting data. Data collection through interviews may have changed somewhat depending on availability and unexpected events. The researcher planned to interview every administrator and staff member employed at Open Enrollment Midwestern University

that works with or directly influences students with disabilities, in addition to as many faculty members and students with ASD that were willing to participate in this study. While the researcher planned to adhere to the research design as closely as possible, interviewees may have been slightly altered once data collection began.

Design for acquisition of data. One month was set aside for data collection through interviews. Initial contact with participants to describe the study and invite them to participate was coordinated via email at least one month prior to the scheduled interviews. Those that agreed to participate selected dates and times that accommodated their schedule in which to complete the one-on-one interview. Follow-up emails prior to the researcher visiting the site were made to participants in order to remind and confirm the scheduled interviews.

Sources of Evidence

Data collection was twofold. The first stage of data collection included document analysis of policies regarding the admission of students with developmental disabilities and accommodations offered. The second stage of data collection involved interviewing students with ASD, and faculty, staff, and key administrators who influence the admission and retention procedures and programs of students with developmental disabilities, specifically students with ASD.

Open-ended interview was selected as the best way to explore the formal and informal policies, procedures, and programs in place at Open Enrollment Midwestern University. These interviews provided understanding of the perceptions held by administration, faculty, staff, and students. Document analysis provided an opportunity to triangulate data provided by the interviews (Creswell, 2009).

Human Subjects Protection

Several steps were taken to protect the rights of participants during this study. Upon proposal approval, the researcher submitted an application to the Institutional Review Board (IRB) at the researcher's degree seeking institution. Permission to study Open Enrollment Midwestern Institution was obtained from the institution's Director of the Student Success Center, who served as the gatekeeper for this study in regards to access to administration, faculty, staff, and students. The researcher requested and received an official letter granting permission to study Open Enrollment Midwestern Institution. Prior to each interview, participants received a copy of the purpose of this study, as well as the procedures taken to protect their confidentiality.

All participants were asked to sign an interview informed consent, which has been included as Appendix D. Data were kept confidential. For the purposes of reporting qualitative data, all participants were assigned a code. Participants were given interview questions ahead of time so they had time to consider their responses. Permission was sought from each participant for the use of an audio-recorder to record the interview for accurate data collection.

Data Collection Procedures

One month was set aside for data collection. The researcher scheduled one hour interviews with each of the 18 participants throughout that month, at times conducive to each participant's schedule. Approximately 10 hours of document analysis took place following these interviews. Interviews with the Director of the Student Success Center and the Director of Disability Services led the researcher to the twelve institutional policies that relate to students with disabilities.

Individual interview protocol. The first stage of data collection involved interviewing current students with ASD (2), faculty (4) and staff (10) who work with students with developmental disabilities, specifically ASD, and key administrators (2) who influence the admission and retention procedures and programs of students with developmental disabilities, specifically students with ASD.

The type of interview technique that was employed was the semi-structured formal interview (Hatch, 2002). Interviews took place at the interviewee's place of work and at a time most convenient for them. The interviews were based around interview protocol and guiding questions, but were conducted in a conversational manner with follow up questions interjected as needed for clarification or to gather further information. Interviews were individual and last approximately one hour each. Follow up interviews were scheduled only if needed or if interviews produce inconsistent information. An interview protocol was utilized for continuity of data collection and analysis. The interview protocol also provided verbatim text to ensure human subjects' rights of voluntary participation and consent.

The researcher developed an individual interview protocol for each group of interviewees. Interview questions were developed around the study's research questions. The administration and staff interview protocol, included as Appendix A, focused on the policies, procedures, and programs that are in place to encourage the graduation and job placement of students with ASD. The faculty interview protocol, included as Appendix B, focused on the faculty's knowledge of the policies and programs pertaining to the graduation of students with ASD. The student interview protocol, included as Appendix

C, focused on the students' knowledge of the programs in place that encourage their graduation and job placement.

Document analysis guide. The second stage of data collection included document analysis of policies regarding the admission of students with developmental disabilities and accommodations offered. The specific documents/policies the researcher analyzed included those related to students with disabilities, specifically students with ASD.

Document analysis was based around the study's research questions. Policies in place to encourage the graduation and job placement of students with disabilities were analyzed, focusing specifically on students with ASD. Procedures related to the tracking and measuring of services offered and received that encourage the graduation and job placement of students with disabilities were analyzed. Lastly, support programs that encourage the graduation and job placement of students with disabilities were analyzed. These included social skills training, academic training, individual advising, and employability training. The document analysis guide has been included as Appendix E.

Data Analysis

The data sources utilized in this study included documents and interviews. The open ended interview questions provided the framework for thick, rich data analysis. According to Patton (1999), qualitative research data analysis could have credibility issues due to the creative process inherent in this type of research. However, researchers may enhance credibility through rigorous, systematic, and replicable data analysis.

Data collected from document analysis was interpreted through the lens of the study's first research question. The researcher used a Document Analysis Guide to

review documents that address institutional policies pertaining to students with ASD in regards to admission, services offered and received, and outcomes. While data pertaining to policy was also gathered during interviews, the researcher collected additional data from formal policies that are in writing.

Research questions two and three were addressed by analyzing data gathered from interviews. The researcher collected data pertaining to procedures through interviewing students with ASD, administration, staff, and faculty. Specifically, the researcher was interested in the tracking and measuring of higher education students with ASD in regards to admission, services offered and received, and outcomes. The researcher collected data pertaining to programs through interviewing students with ASD, administration, staff, and faculty. Programs include social skills training, academic training, individualized advising, and employability training.

Data were organized and prepared by first assigning an identifier, or code, to each interviewee. The interviews were then transcribed using line numbering and organizing relevant information obtained through document analysis. Data were first read to gain a general sense of the information and look for common themes (Creswell, 2009). The researcher made notes in the margins to identify information patterns in relation to each research question. Common themes that emerged were analyzed through the lens of the study's purpose, conceptual framework, and research questions.

The case study findings were assembled through a constructivist research paradigm using inductive analysis (Hatch, 2002). The researcher aligned the data from document analysis and interviews into their respective themes. As suggested by Hatch

(2002), the researcher developed a master outline as the relationships emerged between themes and supporting documentation.

Role of the Researcher

The researcher served as the instrument for data collection in this qualitative case study (Creswell, 2009). According to Creswell (2009), qualitative research is interpretive research. The personal experiences of the researcher had the potential to lead to bias while collecting and interpreting data.

One underlying bias made by the researcher was that students with developmental disabilities, including students with ASD, may be admitted into higher education institutions without these institutions providing the necessary support and resources that enable success. The researcher previously worked at an open enrollment institution that, in the researcher's opinion, lacked the support and resources for the students who were being admitted. The researcher worked in a counseling and advising setting with numerous students with developmental disabilities, including ASD. While these students were admitted into the institution, graduation and job placement were rare due to a lack of support and resources once the student was admitted. Experiences such as these impacted the researcher's bias regarding support and resources provided to students with developmental disabilities at the university level, as well as the success of students with ASD in higher education institutions (Creswell, 2009).

Another bias existed due to the fact the researcher is a prior employee of the institution studied. Prior knowledge of policies, procedures, and programs for students with developmental disabilities, including students with ASD, impacted the researcher's

bias regarding data collected at this research site. The researcher controlled this bias by practicing credibility while analyzing data (Hatch, 2002).

Trustworthiness

The researcher employed credibility, dependability, transferability, and confirmability to ensure trustworthiness of this qualitative case study. First, the researcher ensured accuracy of data by transcribing all interviews, checking for transcript errors, and ensuring that data analysis coding was consistent. Credibility was enhanced through the use of multiple data sources, which allowed the process of triangulation to take place (Hatch, 2002). The researcher also employed a peer reader to check for inconsistencies or possible bias.

Dependability was achieved through permitting interviewed research participants to review the researcher's interpretation of data, in addition to the researcher disclosing biases and assumptions (Creswell, 2009). Protocol for this case study was also followed to limit the likelihood of changes in the study design during the research process (Mertens, 2005). Transferability was enhanced through the selection of the institution studied, a Midwestern open enrollment institution, whose policies and procedures most likely are representative and generalizable to the average open enrollment higher education institution (Hatch, 2002). Thick, rich description of the higher education institution, the participants in the study, and the policies, procedures, and programs discussed helped the reader connect to the research and relate findings to like institutions.

Confirmation of data collected was achieved through congruency of data, findings, and conclusions (Hatch, 2002). This was ensured through the use of an external auditor who reviewed the study, checked for accuracy in data collection, inconsistencies

in data interpretation, and ensured that findings address the research questions (Creswell, 2009).

Summary

The purpose of this case study was to investigate the policies, procedures, and programs in place to encourage the graduation and job placement of college students with ASD. Data collection took place at Open Enrollment Midwestern University, through document analysis and interviews. Document analysis focused on the policies, procedures, and programs relevant to students admitted with developmental disabilities, specifically ASD. Interviews were held with current students with ASD and administrators, faculty, and staff who directly or indirectly work with students with developmental disabilities, specifically ASD.

Data analysis procedures included organizing the data, coding the emerging themes, and assembling these themes through the lens of the study's purpose, conceptual framework, and research questions. The researcher served as the main instrument for data collection. The researcher was aware of ethical considerations regarding human subject participation, such as confidentiality and consent. The researcher was also aware of bias due to insider status and previous experience with higher education and students with developmental disabilities, specifically ASD. Understanding these biases and self-disclosure increased awareness and reduced the likelihood observations were biased. The researcher controlled bias by practicing credibility when analyzing data. The researcher employed credibility, dependability, transferability, and confirmability to ensure trustworthiness of this qualitative case study.

The following chapters present the research findings, discussion of findings, and conclusions for this study on the policies, procedures, and programs that encourage graduation and job placement of students with ASD at Open Enrollment Midwestern University. Chapter Four presents the findings of the study, and chapter five discusses the findings of the study along with conclusions and implications for future research. Appendices include interview protocols, interview informed consent, and document analysis guide.

CHAPTER FOUR

PRESENTATION OF FINDINGS

Introduction

There are currently between 284,000 and 486,000 individuals with Autism Spectrum Disorder (ASD) under the age of 20 years old (Fombonne, 2003). That is a 373% increase in prevalence since 1994 (Dales et al., 2001). The reasons for this increase in prevalence include genetic factors related to heredity or chromosomal disorders and environmental factors related to vaccinations and prescription drugs (CDC, 2012).

As childhood cases of ASD increase, the possibility of young adults with ASD potentially preparing to enter college also increases. A greater number of children are receiving a high school education due to the Individuals with Disabilities Education Act (IDEA) mandates, and these individuals are gaining an interest in and preparing for college (Van Bergeijk et al., 2008). Open enrollment institutions along with advocates of individuals with disabilities have increased the number of individuals with developmental disabilities entering college.

A challenge facing higher education disability professionals is ensuring that appropriate supports and services are provided (Shaw & Dukes, 2005). While the number of college students with learning disabilities is on the rise, there is growing concern about their retention and degree attainment (Hadley, 2007). Few studies have investigated the postgraduate outcomes of college students with disabilities in general (Madaus et al., 2002), let alone with ASD. According to Dowrick et al. (2005), only 12% of students with disabilities graduate from college.

The purpose of this qualitative case study was to investigate the policies, procedures, and programs in place to encourage the graduation and job placement of college students with ASD. Data collection took place at Open Enrollment Midwestern University, a pseudonym, through document analysis and interviews. This study focused primarily on college students with ASD at one open enrollment higher education institution. While most findings included data relevant to college students with disabilities in general, the primary focus was on college students with ASD. The researcher investigated the policies, procedures, and programs in place to encourage the graduation and job placement of college students with ASD. Job placement was generally defined as post-graduation employment related to the degree obtained from the higher education institution.

The guiding research questions for this study were:

1. What policies are in place at Open Enrollment Midwestern University to encourage the graduation and job placement of students with Autism Spectrum Disorder?
2. What procedures are in place at Open Enrollment Midwestern University to encourage the graduation and job placement of students with Autism Spectrum Disorder?
3. What programs are in place at Open Enrollment Midwestern University to encourage the graduation and job placement of students with Autism Spectrum Disorder?

The focus of this chapter is to provide a comprehensive description of the study's data collection and analysis procedures. Data collection will include a description of the

setting of the study, the participants recruited to provide data, and the protocol used to collect data. Data analysis will provide evidence of the data based around the three research questions.

Data Collection

One Midwestern open enrollment university was chosen as the setting for data collection to support this qualitative case study. Administration, faculty, staff, and students within the university were purposefully selected as participants. Their understanding of university policies, procedures, and programs related to students with ASD were collected through semi-structured open-ended interviews. Data were also collected from public documents obtained through the university website regarding university policies and procedures specific to encouraging the graduation and job placement of students with disabilities.

The following sections briefly describe the setting of the study and the study's participants. Protocols to protect human subjects and guide the conduct of the researcher in completing the study will also be discussed. Lastly, a brief discussion of the data collection instruments and their use in answering the study's research questions will be provided.

Setting

One Midwestern open enrollment university was chosen as the setting for this qualitative case study. Open Enrollment Midwestern University, a pseudonym, is a four-year state-supported liberal arts institution that serves approximately six thousand students. Offering nearly 200 degree programs, 99.5% of the student body is enrolled in bachelor programs, while 0.5% are enrolled in a few newly offered master programs.

Located on the outskirts of a town with a population of approximately fifty thousand people, Open Enrollment Midwestern University has a small town, safe feel. In addition to an affordable standard of living, the university was recently recognized as one of the top ten most affordable universities in the nation by U.S News and World Report (University website, 2014). Open Enrollment Midwestern University advertises the quality of their academics at an affordable price.

To gain admission into Open Enrollment Midwestern University as a freshman, a student must meet one of three admission requirements:

1. Be in the top 50% of their high school graduating class
2. Have a cumulative GPA of 2.25 or higher
3. Have an American College Test (ACT) composite score of 21 or higher

However, if an applicant is at least 21 years of age, all admission requirements are waived. The average ACT composite score of incoming freshman is 21.4. The current four year graduation rate for incoming freshman at Open Enrollment Midwestern University is 15%; the current six year graduation rate is 36% (University website, 2014).

Open Enrollment Midwestern University could be described as a non-traditional campus. Initially a junior college, the demographics continue to mimic junior college trends. The majority of the student body are commuter students from the surrounding areas. Approximately 12% of students live on campus, while the remainder live in off campus housing or with their parents. In addition, approximately 1/3 of the student body are over the age of 24 (University website, 2014). This increases the likelihood that students are balancing their studies with full-time employment, marriage, and children of their own. Seventeen percent of the student body identify themselves as a minority race.

A member of Division II of the National Collegiate Athletic Association (NCAA), 6% of the student body at Open Enrollment Midwestern University are an athlete in one of the 16 sports available (University website, 2014). Open Enrollment Midwestern University also offers over 90 student organizations; however, due to the non-traditional demographics of the student body, most students utilize the campus primarily for academics before returning home or to work.

Participants

The target population from which participants were recruited included the administration, faculty, and staff at Open Enrollment Midwestern University. These individuals were purposefully chosen because of their direct work with students with developmental disabilities, specifically students with ASD, and their influence on policies, procedures, and programs related to students with developmental disabilities, specifically students with ASD. Current students with ASD who attend Open Enrollment Midwestern University were also included as participants in this study. The intent of including this population was to collect their perceptions and experiences of the policies, procedures, and programs that encourage their graduation and job placement. Each interview was under an hour in length.

Administration. Open Enrollment Midwestern University employs two vice presidents. The researcher interviewed both of them due to the offices that they oversee and their direct influence on the policies, procedures, and programs related to students with developmental disabilities, specifically students with ASD. The Vice President of Academic Affairs oversees the Admissions Department and faculty. The Vice President of Student Affairs oversees the First-Year Experience Program, the Student Success

Center (which houses Disability Services), Project Stay, and Advising, Counseling, and Testing Services. To protect their privacy, the administrators were coded as IA1 and IA2.

Faculty. The researcher interviewed four faculty from three of the four schools at Open Enrollment Midwestern University. These faculty were recruited due to their direct interaction with students with ASD in the classroom. The researcher planned to interview a fifth faculty member from the fourth and final school; however, that individual is no longer employed at the university. The researcher did not have knowledge of any other faculty in that school who had direct interaction with students with ASD in the classroom. To protect their privacy, the faculty were coded as IF1, IF2, IF3, and IF4.

Staff. The majority of data was collected through interviewing staff at Open Enrollment Midwestern University who work directly with students with ASD. The researcher interviewed a total of ten staff members. These included the Director of the Admissions Department, the Director of Project Stay, the Director of the First-Year Experience Program, the Director of the Student Success Center, the Coordinator of Disability Services, the Director of Advising, Counseling, and Testing Services, and four academic advisors/mental health counselors in Advising, Counseling, and Testing Services. To protect their privacy, the staff were coded as IS1, IS2, IS3, IS4, IS5, IS6, IS7, IS8, IS9, and IS10.

Students. The researcher interviewed two current students with ASD at Open Enrollment Midwestern University. All current students with ASD were contacted by the Coordinator of Disability Services to request their participation in this study. Two

students responded. One of these students has Asperger's Syndrome, and the other has a rare form of Autism. To protect their privacy, the students were coded as IL1 and IL2.

Protocol

Initial contact with Open Enrollment Midwestern University was made with the Director of the Student Success Center approximately six months prior to data collection to obtain permission to use the university as a case study site. Permission was granted, followed by the researcher seeking and obtaining permission to begin data collection through Institutional Review Board (IRB) approval from the University of Missouri. The researcher followed up with the Director of the Student Success Center to set dates for data collection through interviews. Initial communication was via phone calls, followed by an email that contained a copy of the interview informed consent (Appendix D) and interview protocols (Appendices A, B, and C).

Interviews. An email was sent to each purposefully chosen administrator, faculty, and staff member outlining the purpose of the study and asking their permission to interview them. The researcher also included in the email a copy of the interview informed consent (Appendix D) and the respectful interview protocol (Appendices A and B). Email was used to schedule interview appointments at times most convenient for participants. Interviews with administrators, faculty, and staff were conducted in their offices to ensure privacy and convenience for each participant. The purpose of the interviews was to collect information regarding the policies, procedures, and programs in place to encourage the graduation and job placement of students with ASD. Interview questions sought to obtain each participants' knowledge and perception of such policies, procedures, and programs.

Due to privacy regulations, the researcher utilized the Coordinator of Disability Services as a gatekeeper to obtain student interviewees. The Coordinator of Disability Services emailed all current students with a documented ASD, outlining the purpose of the study and inviting them to participate in an interview with the researcher. The email contained the researcher's contact information. Two students contacted the researcher via phone call and scheduled individual interview appointments. These were held in a private tutoring room within the Student Success Center on campus. Each student was given a copy of the interview informed consent (Appendix D) and the student interview protocol (Appendix C).

Document analysis. Throughout interviews, the researcher was directed to the university website regarding university policies and procedures specific to encouraging the graduation and job placement of students with disabilities. All policies were found on the Student Disability Services section of the university website. Of the twelve policies that exist related to students with disabilities, the researcher specifically focused on two policies: Documentation, coded UD1, and Course Substitution and/or Waiver, coded UD2. Data collection from these public documents focused on the policies and procedures in place that encourage the graduation of students with ASD. The document analysis guide has been included as Appendix E of this study.

Data Analysis

Formal data analysis began with the transcription of the interview recordings. Transcriptions were read repeatedly to gain a sense of patterns and common themes. Data collected through documents were analyzed using a document analysis guide. The researcher then aligned data from document analysis and interviews into their respective

themes and analyzed them through the lens of the study's purpose, conceptual framework, and three research questions.

Research Questions

The purpose of this qualitative case study was to investigate the policies, procedures, and programs in place to encourage the graduation and job placement of college students with ASD. The research questions sought to discover the presence or lack thereof services for this population of student. Individual interviews and document analysis data were aligned with common themes that emerged with regards to institutional policies, procedures, and programs that encourage graduation and job placement of students with ASD.

An assumption held by the researcher was that higher education institutions may not be properly prepared with the knowledge, staff, and resources to meet the needs of college students with ASD. Aligning with this assumption, many of the interview questions were answered with "I don't know the answer to that." A consistent limited knowledge pertaining to the policies, procedures, and programs related to students with ASD speaks to the gap in serving this population of students.

Research Question One

Research question one sought to investigate the policies in place at Open Enrollment Midwestern University that encourage the graduation and job placement of students with ASD. The researcher was directed to the institutional website, where the twelve policies related to students with disabilities are located. Through data analysis on these documents and individual interviews, two common themes emerged: generalization of policies and limited knowledge.

Generalization of policies. Upon reviewing the twelve policies related to students with disabilities, not one of these policies specifically addressed students with ASD. Only one policy addressed specific disabilities. This policy outlined the guidelines for documentation for specific areas of disability, which included individuals who are blind or experience low vision, individuals who are deaf or hard of hearing, individuals who have physical disabilities and/or systemic illness, individuals who have psychiatric/psychological disabilities, individuals with head injury/traumatic brain injury, individuals who have Attention Deficit/Hyperactivity Disorder, and individuals with learning disabilities (UD1). ASD, and developmental disabilities altogether, were not included in this extensive policy. There are no written policies at Open Enrollment Midwestern University pertaining to students with ASD. Policies are written for students with disabilities, in general.

Data collected from interviews provided little to no information on policies related to students with ASD. Administration, faculty, and staff seemed to have limited awareness about policies on campus regarding students with disabilities. When asked about policies related to students with ASD, one faculty member responded with, “I assume, I don’t know, but I assume it is considered to be some kind of a disability, and... they would be allowed to get whatever services are available” (IF3). Another faculty member stated, “As far as I know they’re just covered under the umbrella for any students with disabilities, and the [Student Success Center] works with those people I think, and that’s about all I know” (IF4).

What university personnel did report indicated that policies are overly general, geared toward any student with a disability, regardless of what that disability might be.

The only institutional policy that I can think of that would probably relate to those students directly would be a policy that would relate to any student with a disability, and that would be the student's right to receive fair and appropriate accommodations if that student could provide the documentation that showed that the student had whatever disability, and Autism would fall under that. (IF1)

Another faculty member stated, "In general, they are treated the same way anyone else with a learning disability would be treated... They would fall under the umbrella of somebody with an identified special need" (IF3).

While knowledge regarding policies in place to encourage the graduation of students with ASD was lacking, university personnel indicated they are committed to leading students to graduation, regardless of disability. According to one administrator, ...the policies would just strictly be that we are committed to providing services that students need to successfully graduate, and so we don't specifically pull out this disability or that disability...but we do say we're going to provide you with the services that will most likely lead you to graduation, so I think it's more just a general statement. (IA1)

Where knowledge of policies related to students with disabilities existed, it was clear to the researcher that no policies exist at Open Enrollment Midwestern University specifically for students with ASD. One administrator summed it up by saying, "I don't think we have any specific policies related to autism. The institutional policies really would be the Disability Services policies and the types of accommodations that we would make for students there" (IA2).

Limited knowledge. After interviewing 16 administrators, faculty, and staff at Open Enrollment Midwestern University, the researcher knew little about policies in place pertaining to students with disabilities. Most interview questions related to this topic resulted in no response. One faculty member stated, “I think if I called up I could find out, but I don’t know that I get information about [policies]...I don’t really know about it” (IF3). Another faculty member expressed interest in furthering his knowledge by saying,

I don’t know what our policies and programs are. I would like to be more aware of what those specific policies and programs are. I don’t know if there is anything specific in place. I doubt that there are any programs in place that are tailored to help those students obtain their degree. (IF4)

The only policy that faculty members reported knowing about is not actually a formal written policy, but a statement that the university mandates each faculty member to include on their course syllabi. The statement reads:

If you are an individual with a disability and require an accommodation for this class, please notify the instructor or [name], Coordinator of Student Disability Services, at the Student Success Center [telephone number].

(University website, 2014)

According to one faculty member,

...we’re required to have a statement in our syllabi that talk about that. Now, the statement in the syllabus just essentially says if you need accommodations for the class you need to see [the] Office for Disability Services, so that would lead you

to believe that there is some sort of something there that they could provide you.

(IF1)

Another faculty member stated, “We’re told at the beginning of the semester to be sure to include that language in our syllabus, that if anyone has a disability to contact that office”

(IF2). Similarly, “We all have a statement in our course syllabi that any student who has any type of a learning disability has access to...and then we have a phone number [so] they can call the [Student Success Center]” (IF4). Knowledge of that statement was the extent of the knowledge communicated by faculty regarding policies in place pertaining to students with ASD.

The researcher later learned that there are in fact twelve institutional policies pertaining to students with disabilities. While none of these policies are specific to students with ASD, ASD would be included in all twelve of these general policies. The researcher was made aware of these policies by the two staff members interviewed in the Student Success Center, the Director of the Student Success Center, and the Coordinator of Disability Services. According to the Director of the Student Success Center, “We’re very open. We want everything out there so everybody can have access to that because we feel the more knowledge people have, the more power they have and they know where to send the students who need help” (IS1). However, no one outside of this office seemed to be aware of their policies.

One particular policy stood out to the researcher because it went beyond the typical course accommodations available to students who present proper documentation.

The policy states:

[Open Enrollment Midwestern University] may consider a course substitution and/or waiver as a reasonable accommodation when it is shown that a student's disability severely impacts his or her ability to complete a required course(s) for a degree program. (UD2)

Outside of the two staff members interviewed in the Student Success Center, where these policies originate, not one interviewee was aware of this policy. When asked about the existence of this policy, one staff member responded, "I don't know anything. I haven't seen anything in any statement regarding that effect in any of our handouts or catalogue, and I haven't heard of any special accommodation to help a student meet program degree requirements" (IS4). Another staff member stated, "Technically we're not supposed to take those kinds of things into consideration from a policy standpoint. I'm not aware of any" (IS9).

Not only did staff, most of whom are academic advisors, not know about the existence of this policy that could greatly affect the likelihood of graduation among students with ASD or any other disability, but administrators were oblivious to its existence as well. When asked about the presence of such a policy, one administrator responded, "I'm not aware of any specific policies within the program. It's more of individual accommodations at the course level dealing with the instructor, not programmatically or policy related" (IA2). Another administrator stated, "I'm going to say no. Many of the programs don't have the leisure of just changing their program for somebody" (IA1).

Upon learning of this policy from the Director of the Student Success Center, the researcher inquired how a student might learn of this policy.

They can always read it on our website, if they see it on there, there's one way. They may, in conversation with the Coordinator of Disability Services, if they're telling her what's going on, she might suggest it to the student. But that's not something that we would advertise like the programs. You have to abide by the guidelines of the university and make sure that we're doing the right thing all the way around. (IS1)

The Coordinator of Disability Services further explained by saying,

They're all on the website, the handbook, it's very individualized. If a student comes to me and is really struggling with a class and they have a history of struggling with that class, then that is an option we can talk about. But again that's a fine line because you don't want to portray that student as getting unfair treatment or unfair advantage and you don't want to ask professors to lower their academic standards. (IS2)

While a staff member reported that, "The last thing we want to do is have a student come here and not be successful" (IS9), it appears that some policies that would increase the likelihood of students with disabilities being successful are not being communicated to administration, faculty, staff, or students. In fact, while the Disability Services website posts all forms needed to request and receive accommodations, the form needed to request a course substitution or waiver is not made available on the website. In the three years that the Director of the Student Success Center has worked in that department, she reports only two students requesting a course waive/substitution, and when asked the outcome of those requests, she reported, "...one was ok and then one was not" (IS1).

Research Question Two

Research question two sought to investigate the procedures in place at Open Enrollment Midwestern University that encourage the graduation and job placement of students with ASD. The twelve policies on the institutional website that related to students with disabilities also included procedures for each policy. Through data analysis on these documents and individual interviews, two common themes emerged: lack of goals and displaced responsibility.

Lack of goals. After reviewing the twelve institutional policies at Open Enrollment Midwestern University related to students with disabilities, the researcher discovered there are clear procedures related to each policy. However, after interviewing 16 administrators, faculty, and staff, the researcher learned there is absolutely no tracking or measuring taking place with regard to students with ASD or any disability. When asked about tracking and measuring students with disabilities toward graduation and beyond, uncertainty was the consistent response. According to one administrator, “Currently I would say we don’t have a good method of tracking or measuring...” (IA2). Another administrator expressed interest in tracking and measuring by saying,

...I think that would be pretty cool...I don’t know if it’s being done, I suspect it’s not just because I’ve not seen data from [Open Enrollment Midwestern University] showing, I mean it’d be cool, if I had autism spectrum, I’d love to be able to see ‘oh wow, students are able to complete a college degree with this diagnosis.’ That would be encouraging to me. On the other hand, I’ve not seen that data, so I don’t know if it exists [at] other schools. It doesn’t exist here that I know of. (IA1)

While there is no procedure related to tracking and measuring, there are also no goals that the institution has set regarding the graduation and job placement of students with ASD or any other disability that they admit. While one staff member defined success as “graduat[ing]” (IS9), procedure speaks to a lack of importance regarding graduation being a goal. According to the Director of the Student Success Center, “I don’t know that [we’re] particularly focusing on graduation, but we provide the support they need to graduate” (IS1). The Coordinator of Disability Services further explained that the institution’s view on graduating students with disabilities is more than an institutional view.

...on the list serve that I’m on, I see over and over and over, we’re not there to ensure their success, we’re there to help them access their success, if that makes sense. My sole responsibility is to make sure they are receiving a level playing field, equal access to the same thing as all students. (IS2)

While students with ASD or any other disability are not specifically being tracked and measured, the researcher collected some data regarding the graduation rate among the entire student body. According to one staff member, “We know that in 6 years a little over 30% of [the] freshman cohort actually graduate” (IS9). When questioned about the population of students that are admitted past the age of 21 under the open enrollment policy, the researcher learned that graduation rates are, “About 11% in that 6 year period. And that is consistent with national data...”

Throughout interviews, the researcher discovered there is one department on campus that has procedures regarding tracking and measuring students with ASD and other disabilities toward the goal of graduation. This department is called Project Stay,

and their results are noteworthy. Project Stay is a federally funded program through the United States Department of Education that serves at-risk populations of college students including students with disabilities (University website, 2014). Their program mission reads:

...to provide comprehensive resources for students as they complete their bachelor's degrees and transition to graduate school and professional life.

(University website, 2014)

According to the Director of Project Stay, "Every student that's in our program, we track. ...the goal is for them to graduate within six years of joining our program" (IS10).

Project Stay's goals are not only specific, they are also connected to their funding.

We have to have at least [a] 33% [six-year graduation rate] to get our points to continue our funding. We track...three different things. We track that graduation number, we track the number of students who persist from one year to the next, and we track the number of students that stay in good academic standing. Our first objective is our persistence rate from fall to fall, and we have to be at least 70%, we're usually in the 80s. The next one is the good academic standing rate, it has to be at 85%, we're usually 90% or above. And then the six year graduation rate is at 33%, and I think for last year we were sitting at 37%, the year before that we were at 43%. (IS10)

Although Project Stay is serving a population made up of at-risk students, including students with ASD and other disabilities, their graduation rates far exceed the general population at Open Enrollment Midwestern University.

The researcher questioned the Director of the Student Success Center regarding the reasoning behind the lack of tracking and measuring students with disabilities toward graduation.

It's different. It's very hard to tie that to an outcome because you have so many outside factors that affect it. This is something that is discussed a lot on our list serves, that it is, I don't want to say impossible, but it is very very very hard to tie the services here that we provide into an outcome like graduation. (IS1)

Yet, Project Stay is tying their services to graduation and exceeding their expectations. Disability Services has no expectations, and therefore is unaware if their students are even graduating.

Displaced responsibility. A common theme that consistently emerged throughout interviewing 16 administrators, faculty, and staff at Open Enrollment Midwestern University was a lack of responsibility or passing responsibility onto someone else. When asked about the procedures in place that encourage the graduation and job placement of students with ASD, one of the most common responses was that it was the student's responsibility to self-identify as having a disability. According to one staff member, "...there is no way of tracking unless they self-identify" (IS3). An administrator further explained by saying,

Tracking is totally voluntary. Unless the student self-identified or exhibited some characteristics [where] a staff member would refer them to the Disabilities Services Office. They would self-identify at that time to the Disability Services Coordinator and then they would work with them to try to make accommodations, but they would really rely on the self-identification or referrals. (IA2)

If a student does self-identify, the finger of responsibility regarding graduating students with ASD or any disability is pointed toward Disability Services, which is housed within the Student Success Center. It should be noted that Disability Services is a one staff member office. According to one administrator, “If there is any tracking, I would suspect it’s done in the Student Success Center” (IA1). One staff member went as far to say,

I don’t know the answer to that, but my suspicion is that the Student Success Center...must track those students. I’m assuming that there is some kind of institutional policy, state policy, probably federal policy that requires them to be able to track those students to indicate what kinds of accommodations they were able to provide the students. (IS9)

The institution seems to be placing the responsibility of the success of all students with disabilities on the Student Success Center, more specifically on one person, the Coordinator of Disability Services. Administrators, faculty, and staff assume procedures are in place through that office to track and measure these students toward graduation. However, when asked how students with ASD or disabilities in general are being tracked and measured, the response from the Student Success Center was “I don’t think any tracking device exists here, to my knowledge” (IS1). According to the Coordinator of Disability Services, “They’re not tracked specifically. I kind of keep tabs on them, but it’s more informal and it’s not official” (IS2).

Research Question Three

Research question three sought to investigate the programs in place at Open Enrollment Midwestern University that encourage the graduation and job placement of

students with ASD. The researcher relied primarily on interviews to collect this data. The richness of data was enhanced through the interviews of two current students at Open Enrollment Midwestern University that have a form of ASD. Data analysis on interviews revealed two common themes: generalization of services and student responsibility.

Generalization of services. All 18 interviewees seemed to be aware of the services available to students on campus; however, they made it clear that services on campus were for all students. “I’m not sure that there’s any way that we really segregate students here on campus for any kind of services” (IS9). Interviews revealed that all students have access to mental health counseling, career counseling, advising, and tutoring.

While university personnel were aware of Disability Services, most interviews revealed there are not any other programs on campus geared specifically for students with ASD or any other disability. According to one administrator, “...we don’t discriminate any service that’s available to any student...I don’t think there’s anything special...they obviously have the same privilege to these services as any other student at [Open Enrollment Midwestern University]” (IA1). One staff member directly stated, “They are treated just as any other student” (IS4).

The exception to this generalization of services was Project Stay. According to one faculty member, “Project Stay has a lot of rich services that are designed for students to promote graduation. Lots of tutoring services, career services, job shadowing...one on one personal attention...” (IF1). Similarly, one staff member reported, “I’m not sure that there’s any way that we really segregate students here on campus for any kind of

services. The only things that I can think of would be...programs...like Project Stay” (IS9).

Student responsibility. A common theme that was repeated throughout all of the interviews focused on student responsibility. At the college level, the responsibility lies in the student to self-identify as someone with a disability and seek out the services that will help them be successful. According to the Coordinator of Disability Services, “It’s on them. It’s their responsibility. We can give them what they’re required to have by law, what the ADA says we have to provide, but ultimately it’s up to them whether they’re successful or not. That’s what I keep being told” (IS2).

The researcher was repeatedly told that services are advertised the same way to all students and available in the same way to all students. One staff member reported, “We try to expose them to everything just like we would any other student at the university. It would be up to them to take advantage of those services. They are in place, it’s just a matter of if they take advantage of them” (IS3). However, students with ASD are not any other student. The issues and needs are atypical to the traditional college student. ASD is characterized by impairments in social interaction and communication, in addition to restricted behaviors and interests (American Psychiatric Association, 2000). These factors could play into a lack of seeking out services or even a lack of awareness of services.

Upon interviewing the Director of Project Stay, the researcher discovered that Project Stay is proactive in recruiting students with disabilities to their program. “We ask...on our application. They have to apply to be in Project Stay, and because [having a disability] is one of the ways they can qualify for our program, they answer that question

as part of our process” (IS10). Not only do they ask on their application whether a student has a disability or not, they also seek out students who have disabilities. “...at the beginning of the fall semester...the Disabilities Services Office will tell me how many students are registered with [them], [and] we put together letters and [Disability Services] mails them out...for us so that they know that, as a student with a disability, they’re eligible” (IS10).

Project Stay also offers individualized services to their at-risk students. These are services offered in other programs to the student body at large, but Project Stay also offers these students specifically to their at-risk population. These services include additional advising, additional mental health counseling, additional career exploration assistance, additional tutoring, and overall additional support. “[We’ve] got tutoring here, they can do counseling here, job exploration, but I think more than anything it’s just that we are very involved with them” (IS10). In regards to job placement,

Our students can do job shadowing through us...We’ll also help students with resumes, we’ll help them prepare for interviews. Every spring semester we teach a Leadership and Professional Development class...They learn how to write a cover letter, how to do a resume, they come out with a professional resume at the end of that, they do mock interviews. (IS10)

In addition to being proactive regarding recruitment and programs available, Project Stay is also proactive in communicating with their students to ensure they are aware of the programs in place to ensure their success.

When they’re in our program, they have to come meet with us a certain number of times, they have to come to activities, and I really think that is one of the big

strengths. They get a weekly email from us. It always has exactly what's coming up, here's what you need to be doing, here's the activities that we have. We send out postcards once a month with things that are going on in our program and things they need to remember...then we follow up with text messages if they've given us a cell phone number, Facebook, we will call, so we try to use just about every avenue that we can. (IS10)

Project Stay appears to be the most proactive program at Open Enrollment Midwestern University in terms of encouraging the graduation and job placement of students with ASD and other disabilities. Project Stay checks on enrollment each semester. According to the Director of Project Stay, "We track them closely, so if they're not enrolled, they're going to be contacted by us" (IS10). They even collaborate with faculty on campus to ensure students are successful in their classes. "We ask at the beginning of every semester for faculty to identify any of our students that they see struggling. When we get phone calls or emails like that, we follow up with our students to see what we can do to help" (IS10).

Of the two students with a form of ASD that the researcher interviewed, one student was a member of Project Stay and also received accommodations from Disability Services. When asked where the student would go for help if he were struggling, he replied, "Project Stay, tutoring. They could have a tutor help me along the way with homework and stuff like that, maybe studying for tests" (IL1). This particular student is a sophomore biology major, with a competitive GPA. He has little concern about whether or not he will graduate. His concern lies beyond graduation. "...sometimes I feel like a teenager trapped in a sub-adult's body...socially. Because...with the condition

I have, I'm not really that socially oriented..." (IL1). However, since he is a member of Project Stay, he will have assistance with job exploration such as interview skills.

The other student interviewed has applied to be a member of Project Stay, but he does not meet their admission requirements because he is a part time student. He does, however, receive accommodations from Disability Services. He has been attending Open Enrollment Midwestern University for seven years and is currently a sophomore. He has changed his major several times, and is now a General Studies major. When asked what made him decide to attend college, he answered, "I just knew I would have help, and plus have the ability to be in a college setting" (IL2).

Summary

The purpose of this qualitative case study was to investigate the policies, procedures, and programs in place to encourage the graduation and job placement of college students with ASD. Through document analysis and interviewing administration, faculty, staff, and students at Open Enrollment Midwestern University, the researcher organized data collected into common themes.

While there is nothing specifically in place for students with ASD, the researcher discovered that Disability Services is available for any student with a disability. However, the policies, procedures, and programs that encourage the graduation and job placement for these students are few, or at least not well known. Services on campus are generalized to the entire student body, and the finger of responsibility in regards to graduating students with disabilities is often pointed to someone else.

The researcher learned of one department on campus that is intentional in regards to encouraging the graduation and job placement of students with disabilities, including

students with ASD. Project Stay has procedures and programs in place to ensure the success of their at-risk students. More importantly, they have set goals to graduate these students, and they are exceeding these goals. The campus at large does not have any goals to graduate students with ASD or any other disabilities, and they are not aware what the graduation rate is among these students.

Further discussion of the study's findings will be presented in Chapter Five. Chapter Five begins with a brief review of the study and its design. A summary of findings will be discussed along with the major themes. Implications for practice will be discussed, in addition to recommendations for further research. Appendices include interview protocols, interview informed consent, and document analysis guide.

CHAPTER FIVE

DISCUSSION

Introduction

The best way universities can support students with disabilities is to provide them with the appropriate accommodations needed to move them toward the successful completion of courses and onto graduation (Pingry O'Neill et al., 2012). Many higher education institutions have a resource center of some kind for students with disabilities. However, few have programs for the more severely developmentally disabled that integrate these students into the traditional college experience. In fact, a startling statistic reported by Harbour (2004) stated that over 80% of postsecondary disability services report needing information about best practices.

Many institutions continue to accommodate students with ASD as they accommodate students with any other disability (Smith, 2007). There are many other accommodations that may be helpful for students with ASD that are not necessarily required by the ADA and may be beyond the scope of what a typical university is willing to provide (Adreon & Durocher, 2007)). These may include additional advisement with selecting courses (Williams & Palmer, 2004), course exemptions or course substitutions, exemption from group work, the option to take oral exams instead of written exams, flexibility with assignment due dates, and flexibility with class scheduling (Willey, 2000).

Purpose of the Study

The purpose of this case study was to investigate the policies, procedures, and programs in place to encourage the graduation and job placement of college students with

ASD. Data collection took place at Open Enrollment Midwestern University, a pseudonym, through document analysis and interviews. Document analysis focused on the policies relevant to students admitted with developmental disabilities, specifically ASD. Interviews were held with current students with ASD, and administrators, faculty, and staff who directly or indirectly work with students with developmental disabilities, specifically ASD.

The guiding research questions for this study were:

1. What policies are in place at Open Enrollment Midwestern University to encourage the graduation and job placement of students with Autism Spectrum Disorder?
2. What procedures are in place at Open Enrollment Midwestern University to encourage the graduation and job placement of students with Autism Spectrum Disorder?
3. What programs are in place at Open Enrollment Midwestern University to encourage the graduation and job placement of students with Autism Spectrum Disorder?

This study focused primarily on college students with ASD at one open enrollment higher education institution. While most findings included data relevant to college students with disabilities in general, the primary focus was on college students with ASD. The researcher's intent was to discover whether open enrollment higher education institutions have policies, procedures, and programs in place with the goal of leading students with ASD to success, through graduation and job placement.

Design and Procedures

This study examined the policies, procedures, and programs in place to encourage the graduation and job placement of college students with ASD. A qualitative case study was conducted at Open Enrollment Midwestern University through interviews and document analysis. One month was set aside for data collection. Once approval was granted from the University of Missouri Institutional Review Board (IRB), permission was sought and obtained from the gatekeeper at Open Enrollment Midwestern University, the Director of the Student Success Center, and each individual interview participant.

Semi-structured open-ended interviews were conducted on 18 intentionally selected participants. Two administrators, four faculty, and ten staff members were interviewed due to their influence on policies, procedures, and programs related to students with ASD and their experience working with students with ASD. Two current students with ASD were also interviewed to collect data pertaining to their experiences with the policies, procedures, and programs as a college student with ASD.

Interviews led the researcher to the twelve institutional policies that apply to students with disabilities, including students with ASD. These policies are located on the Student Success Center website. While none of these policies specifically mention ASD, all policies can apply to students with ASD. The researcher conducted a document analysis on two specific policies, coded UD1 and UD2. UD1 was chosen because it goes into detail regarding the documentation needed for specific disabilities, but it does not include ASD. UD2 was chosen because it is a policy that goes beyond the general accommodations requests, having the potential to increase the success of students with

ASD and other disabilities, yet is not advertised to students, administration, faculty, or staff.

Data collected from document analysis were interpreted through the lens of the study's first research question. The researcher used a Document Analysis Guide to review documents that address institutional policies pertaining to students with ASD in regards to admission, services offered and received, and outcomes. Research questions two and three were addressed by analyzing data gathered from interviews. The data were organized and prepared by first assigning an identifier, or code, to each interviewee. The interviews were then transcribed using line numbering and organizing relevant information obtained through document analysis. Data were first read to gain a general sense of the information and look for common themes (Creswell, 2009). Common themes that emerged were analyzed through the lens of the study's purpose, conceptual framework, and research questions. The researcher aligned the data from document analysis and interviews into their respective themes.

Summary of Findings

Each of the three research questions was addressed by the data collected during the study. Findings supported the researcher's assumption that students with ASD are being admitted into higher education institutions without these institutions providing the necessary support and resources that enable success. This is due to limited policies, procedures, and programs in place to support these students who are being admitted. Findings indicated that students with disabilities, including students with ASD, are not being tracked and measured. The institutions do not have a specific goal toward graduating this population of students, and therefore they are unaware if these students

are graduating or not. Findings also indicated limited knowledge of policies related to students with disabilities and no policies related to students specifically with ASD.

Findings revealed one department on campus that tracks and measures students with disabilities, including ASD, toward graduation: Project Stay. A federally funded program through the United States Department of Education that serves at-risk populations of college students including students with disabilities, Project Stay has procedures and programs in place to ensure the success of students. More importantly, they have set goals to graduate these students, and they are exceeding these goals.

Analysis of data uncovered patterns in the reports of policies, procedures, and programs related to students with disabilities, including ASD. These patterns were organized into major themes. The following major themes emerged from this study:

1. Limited knowledge of policies related to students with disabilities, including ASD.
2. Generalization of policies, written in general for students with disabilities, and neglecting the specific needs of individuals with disabilities such as ASD.
3. Lack of institutional goals related to the graduation and job placement of students with disabilities, including ASD.
4. Displaced responsibility regarding the success of students with disabilities, including ASD.
5. Generalization of services, designed for the entire student body, neglecting the specific needs of individuals with disabilities such as ASD.
6. Responsibility of graduation and job placement falls on the student.

The most salient theme seemed to be the overall limited knowledge regarding the policies, procedures, and programs in place for students with disabilities in general. The researcher assumed that there may be limited knowledge regarding students with ASD, due to the specificity of the population. However, administration, faculty, and staff seemed to know little about the university's role in the success of students with disabilities as a whole. While there are policies in place, there are little to no procedures, and overly generalized programs. Further discussion of these major themes will be discussed in the next section.

Discussion of Major Themes

Research question one focused on the policies in place to encourage the graduation and job placement of college students with ASD. The first major theme revealed through this qualitative case study was limited knowledge among administration, faculty, and staff regarding policies that relate to students with disabilities in general. They exist but knowledge of their existence outside of Disability Services was little to none. Prior research suggested the best way universities can support students with disabilities is to provide them with the appropriate accommodations needed to move them toward the successful completion of courses and onto graduation (Pingry O'Neill et al., 2012). However, providing appropriate accommodations would first require a knowledge among university personnel regarding policies in place that pertain to students with disabilities and such accommodations.

The second theme that emerged out of research question one revealed that of the policies that do exist, none speak to students with ASD specifically. All policies are written for students with disabilities, in general. There are no formal policies for students

with ASD. This finding aligned with prior research that suggested many institutions continue to accommodate students with ASD as they accommodate students with any other disability (Smith, 2007). These accommodations, however, do not take into the consideration the specific needs of individuals with ASD (Smith, 2007).

Research question two focused on the procedures in place to encourage the graduation and job placement of college students with ASD. The first major theme that emerged was that there are none. There is a lack of goals pertaining to graduating students with ASD and other disabilities. In fact, there is no tracking or measuring system in place that would speak to the graduation or job placement of students with disabilities in general, let alone students with ASD. This finding aligned with prior research stating that few studies have investigated the postgraduate outcomes of college students with disabilities in general (Madaus et al., 2002), let alone with ASD. According to Dowrick et al. (2005), only 12% of students with disabilities graduate from college.

The second theme that emerged out of research question two spoke to the displaced responsibility among departments on campus. While self-identification on the students part was addressed consistently throughout data, all other responsibility regarding the success of students with disabilities seemed to fall on Disability Services. Prior research suggested that a disability office would be the primary point of contact for issues related to students with disabilities. The disability office would coordinate services for students, serving as an advocate for issues regarding students with disabilities (Shaw & Dukes, 2005). However, prior research also emphasized the importance of collaboration among university offices to ensure the success of students with disabilities.

Implementing a collaborative approach among student affairs units has been strongly recommended when working with students with disabilities (Korbel et al., 2011).

Research question three focused on the programs in place to encourage the graduation and job placement of college students with ASD. The first major theme revealed that the institution relies on Disability Services as sole program to serve the diverse needs of students with ASD and other disabilities. Other campus programs are designed to serve the general student body and are not geared toward students with more specific needs. Higher education institutions are often not prepared to address non-academic concerns such as socializing, performing life skills, doing laundry, budgeting, using a checkbook, or getting along with roommates (Van Bergeijk et al., 2008).

The second theme that emerged out of research question three was that it is up to students with disabilities to figure out what programs are available and seek them. This finding strongly aligned with literature review findings that stressed the shift in responsibility at the college level to self-advocate. At the college level, the students are their own advocate for academic success. They must self-identify and provide the required documentation to be eligible for accommodations (Gil, 2007). The students are responsible for notifying each faculty member of their approved accommodations (Gil, 2007).

An unexpected finding in this study was the discovery of Project Stay. Project Stay has a set goal to graduate at-risk students, including students with ASD and other disabilities. They have programs in place that are designed to meet the individual needs of students with ASD and other disabilities. They actually seek out students with disabilities and seek them when they are struggling or may need extra support.

Furthermore, they track and measure their students throughout their college experience toward graduation. Most noteworthy, Project Stay is exceeding their goals of graduating at-risk students, including students with ASD and other disabilities.

Implications for Practice

The results of this qualitative case study suggest that there are limited policies in higher education that pertain specifically for students with ASD. Few studies have investigated the postgraduate outcomes of college students with disabilities in general (Madaus, Foley, & McGuire, 2002), let alone with ASD. As this population is on the rise, higher education institutions and the students they serve could benefit from including specific policies for students with ASD in their institutional policies.

In addition, the results of this study suggest that the policies related to students with disabilities in general are not well known throughout university personnel. Academic advisors should be familiar with institutional policies that relate to students with disabilities, such as reduced course load or course substitutions (Korbel et al., 2011). Lack of institutional policy knowledge calls for further education of administration, faculty, and staff regarding specific policies related to students with disabilities.

This study also suggests that students with disabilities, including students with ASD, are not being tracked and measured in any way. Nearly one-fourth of college students with disabilities report not receiving the appropriate accommodations needed to be academically successful (NCES, 2003). Furthermore, there are no institutional goals toward graduating this population of student. Without goals, there is no priority or urgency to encourage students with disabilities, including ASD, to graduate and obtain job placement. According to Dowrick et al. (2005), only 12% of students with

disabilities graduate from college. There is no known report on students with ASD. Not only should higher education institutions set a goal toward the graduation and job placement of students with ASD and other disabilities, they must then track and measure these students toward that goal.

In addition, higher education institutions currently place the most of the responsibility of graduating on the student with ASD, or on the Coordinator for Disability Services. The university should work as a collaborative system toward their goal of graduating students with ASD and other disabilities. Implementing a collaborative approach among student affairs units has been strongly recommended when working with students with disabilities (Korbel et al., 2011). Throughout the college experience, it is essential for disability services to educate all student affairs entities of accommodation policies, universal design principles, and legal mandates (Korbel et al., 2011). Students with ASD interact with the entire university system; therefore, each part of that system should hold some level of responsibility toward the success of that student.

Lastly, the results of this study indicated that universities rely on primarily one program to help students with ASD and other disabilities be successful: Disability Services. All other programs are designed to serve the general student body and not designed to serve the diverse needs that students with disabilities may present with. Higher education institutions are often not prepared to address non-academic concerns such as socializing, performing life skills, doing laundry, budgeting, using a checkbook, or getting along with roommates (Van Bergeijk et al., 2008).

Furthermore, it is often up to the student to seek out any services that may or may not be available to them. At the college level, the students are their own advocate for

academic success. They must self-identify and provide the required documentation to be eligible for accommodations (Gil, 2007). The researcher poses these questions: What if the entire university system operated like Project Stay, finding out which students have a disability, setting a goal to graduate them, providing programs designed to encourage them, and tracking and measuring them through graduation? If Project Stay can set goals to graduate at-risk students, and exceed those goals, could the entire university system not model after them?

Limitations

Limitations of this study include setting, population sample, and researcher bias. This research was limited in generalizability due to the case study design. While open enrollment higher education institutions of similar size and demographic may benefit from this study, this case study examined the policies, procedures, and programs of only one open enrollment higher education institution. The results of the study should not be generalized to all open enrollment higher education institutions.

In addition, while the focus of this study was on students with ASD, the policies, procedures, and programs examined were intended for students with disabilities in general. It is not common for policies, procedures, and programs to be written specifically for students with ASD. While the number of students with ASD attending college are on the rise, a small institution such as Open Enrollment Midwestern University does not have a population of students with ASD large enough to render specific policies, procedures, and programs.

An underlying limitation in regards to bias on the part of the researcher was that students with developmental disabilities, including students with ASD, may be admitted

into higher education institutions without these institutions providing the necessary support and resources that enable success. The researcher previously worked at an open enrollment institution that, in the researcher's opinion, lacked the support and resources for the students who were being admitted. The researcher worked in a counseling and advising setting with numerous students with developmental disabilities, including ASD. While these students were admitted into the institution, graduation and job placement were rare due to a lack of support and resources once the student was admitted. Experiences such as these impacted the researcher's bias regarding support and resources provided to students with developmental disabilities at the university level, as well as the success of students with ASD in higher education institutions.

Another bias existed due to the fact the researcher is a prior employee of the institution studied. Prior knowledge of policies, procedures, and programs for students with developmental disabilities, including students with ASD, impacted the researcher's bias regarding data collected at this research site. The researcher controlled this bias by practicing credibility through the use of multiple data sources, which allowed the process of triangulation to take place (Hatch, 2002).

Recommendations for Future Research

This study was conducted at one Midwestern open enrollment higher education institution. This presents an opportunity to research more higher education institutions across the country. While the focus of this study was on an open enrollment institution, selective institutions may also provide an opportunity for further research. Many individuals along the spectrum, such as individuals with Asperger's Syndrome, have competitive admissions applications.

Another opportunity for further research lies in the scope of interviewees. Only two students agreed to be interviewed for this case study. This presents an opportunity to interview more students along the spectrum and gain their perspective, as a college student with ASD, on policies, programs, and procedures that encourage their graduation and job placement. In addition, an opportunity exists to broaden the scope and diversity of administrators, faculty, and staff interviewed.

While this study was a qualitative case study, the question remains: What is the graduation and job placement rate of college students with ASD? Similarly, it is unknown exactly how many individuals with ASD are currently enrolled in higher education institutions. This presents the opportunity for quantitative research. However, this data would only be available at institutions that track this population of student.

Finally, this study unintentionally revealed Project Stay as a program that has had success at Open Enrollment Midwestern University in regards to tracking and measuring at-risk students, including students with ASD, toward graduation and job placement. Further research on Project Stay's recruitment efforts, policies, procedures, and programs is recommended. Furthermore, because Project Stay is a federally funded program that is offered at many higher education institutions across the country, this presents the opportunity to research this program as a whole or at other institutions.

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Appendix A

Administration and Staff Interview Protocol

Introduction: My name is Natalie Bruce, and I am a doctoral student in the Educational Leadership and Policy Analysis Ed.D. Program at the University of Missouri. I am conducting this interview as part of my dissertation entitled “A Qualitative Case Study Investigating the Graduation and Job Placement Outcomes of College Students with Autism Spectrum Disorder.” With your permission, I would like to audio-record the interview so that I may review your comments. I would also like to take notes during the interview if that is okay with you.

Study Purpose: The purpose of this case study is to investigate the policies, procedures, and programs in place to encourage the graduation and job placement of college students with Autism Spectrum Disorder.

Voluntary Participation: I want to remind you that your participation in this study is completely voluntary. You may withdraw your participation at any time. Do you have any questions or concerns about participating?

Consent Form: (2 copies) Here is a copy of the Consent Form that I e-mailed to you. Would you like to read over it again prior to signing it?

Thank You: I want to thank you for agreeing to allow me to interview you. If you are ready, I will start the recorder and we will begin.

Interview Questions: Please answer these questions to the best of your knowledge. These questions pertain to students with Autism Spectrum Disorder. If policy, program, or procedure relates to students with disabilities in general, please note that in your response.

1. What is your role in the institution?
 - a. How many years have you served in this role at the university?
2. How are students with Autism Spectrum Disorder tracked and measured throughout the admission process at this institution?
3. How are students with Autism Spectrum Disorder tracked and measured in regards to services offered and received at this institution?
4. How are students with Autism Spectrum Disorder tracked and measured in regards to graduation and job placement at this institution?
5. What programs are available to encourage graduation for students with Autism Spectrum Disorder at this institution?
6. What programs are available to encourage job placement for students with Autism Spectrum Disorder at this institution?
7. How are these programs communicated to students with Autism Spectrum Disorder?

8. What can you tell me about institutional policies pertaining to students with Autism Spectrum Disorder?
9. What policies, if any, provide degree program accommodations or flexibility to students with Autism Spectrum Disorder at this institution?

Thank You: Again, I want to thank you for visiting with me today. The information you shared has been very helpful.

Appendix B

Faculty Interview Protocol

Introduction: My name is Natalie Bruce, and I am a doctoral student in the Educational Leadership and Policy Analysis Ed.D. Program at the University of Missouri. I am conducting this interview as part of my dissertation entitled “A Qualitative Case Study Investigating the Graduation and Job Placement Outcomes of College Students with Autism Spectrum Disorder.” With your permission, I would like to audio-record the interview so that I may review your comments. I would also like to take notes during the interview if that is okay with you.

Study Purpose: The purpose of this case study is to investigate the policies, procedures, and programs in place to encourage the graduation and job placement of college students with Autism Spectrum Disorder.

Voluntary Participation: I want to remind you that your participation in this study is completely voluntary. You may withdraw your participation at any time. Do you have any questions or concerns about participating?

Consent Form: (2 copies) Here is a copy of the Consent Form that I e-mailed to you. Would you like to read over it again prior to signing it?

Thank You: I want to thank you for agreeing to allow me to interview you. If you are ready, I will start the recorder and we will begin.

Interview Questions: Please answer these questions to the best of your knowledge. These questions pertain to students with Autism Spectrum Disorder. If policy, program, or procedure relates to students with disabilities in general, please note that in your response.

1. What is your role in the institution?
 - a. How many years have you served in this role at the university?
2. What programs are available to encourage graduation for students with Autism Spectrum Disorder at this institution?
3. How were these programs communicated to you?
4. What can you tell me about institutional policies pertaining to students with Autism Spectrum Disorder?
5. How were these policies communicated to you?
6. Explain how policies related to students with Autism Spectrum Disorder pertain to the classroom?
7. What policies, if any, provide degree program accommodations or flexibility to students with Autism Spectrum Disorder at this institution?

Thank You: Again, I want to thank you for visiting with me today. The information you shared has been very helpful.

Appendix C

Student Interview Protocol

Introduction: My name is Natalie Bruce, and I am a doctoral student in the Educational Leadership and Policy Analysis Ed.D. Program at the University of Missouri. I am conducting this interview as part of my dissertation entitled “A Qualitative Case Study Investigating the Graduation and Job Placement Outcomes of College Students with Autism Spectrum Disorder.” With your permission, I would like to audio-record the interview so that I may review your comments. I would also like to take notes during the interview if that is okay with you.

Study Purpose: The purpose of this case study is to investigate the policies, procedures, and programs in place to encourage the graduation and job placement of college students with Autism Spectrum Disorder.

Voluntary Participation: I want to remind you that your participation in this study is completely voluntary. You may withdraw your participation at any time. Do you have any questions or concerns about participating?

Consent Form: (2 copies) Here is a copy of the Consent Form that I e-mailed to you. Would you like to read over it again prior to signing it?

Thank You: I want to thank you for agreeing to allow me to interview you. If you are ready, I will start the recorder and we will begin.

Interview Questions:

1. What is your year and major?
2. What programs are available to you to encourage graduation from this institution?
3. What programs are available to you to encourage job placement?
4. How were these programs communicated to you?
5. What has been most helpful as you work toward graduation and job placement?
6. What barriers have you encountered in completing your degree program?
7. What barriers have you encountered (or anticipate encountering) in obtaining job placement?

Thank You: Again, I want to thank you for visiting with me today. The information you shared has been very helpful.

Appendix D

Interview Informed Consent

Identification of Researchers: This research is being performed by Natalie Bruce, doctoral candidate with the Educational Leadership and Policy Analysis Department at University of Missouri - Columbia.

Purpose of the Study: The purpose of this case study is to investigate the policies, procedures, and programs in place to encourage the graduation and job placement of college students with Autism Spectrum Disorder.

Request for Participation: The researcher is inviting you to participate in a study investigating the policies, procedures, and programs in place to encourage the graduation and job placement of college students with Autism Spectrum Disorder. It is up to you whether you would like to participate. If you decide not to participate, you will not be penalized in any way. You can also decide to stop at any time without penalty. You will be provided with the interview questions in advance. If you do not wish to answer any of the questions, please ask the researcher to omit asking those questions. You may withdraw your data at the end of the study.

Exclusions: You must be at least 18 years of age to participate in this study.

Description of Research Method: This study involves being audio-taped during an interview about the policies, procedures, and programs in place to encourage the graduation and job placement of college students with Autism Spectrum Disorder. You will be given the opportunity to view the basic interview questions prior to the interview in order to have time to consider your responses. Interviews will be intended to take about 60 minutes.

Privacy: All of the information collected will be confidential. The researcher will not record your name or any information that could be used to identify you.

Explanation of Risks: The risks associated with participating in this study are similar to the risks of everyday life.

Explanation of Benefits: You will receive little to no personal benefit from participating in this interview.

Questions: If you have any questions about this study, please contact Dr. Robert Watson. He can be reached through MU's Department of Educational Leadership & Policy Analysis at (417) 836-5177. If you have questions about your rights as a research project participant, you may contact the MU Institutional Review Board at (573) 882-9585.

I have read this form and agree to participate.

Signature: _____

Date: _____

Appendix E

Document Analysis Guide

Document Description:

Category	Observation
<p>Admission Policies</p> <ul style="list-style-type: none">• Students with disabilities• Students with ASD	
<p>Tracking and Measuring</p> <ul style="list-style-type: none">• Services offered and received• Outcomes	
<p>Support Programs</p> <ul style="list-style-type: none">• Social skills training• Academic training• Individualized advising• Employability training	

VITA

Natalie Trent Bruce earned a Bachelor of Arts in Psychology from Truman State University in 2005 and a Master of Arts in Mental Health Counseling from the University of Missouri-Kansas City in 2007. She started her career at Missouri Southern State University in Joplin, Missouri in August 2007 as a Mental Health Counselor and Academic Advisor, earning licensure as a Licensed Professional Counselor in 2009. In 2010, Natalie became the Coordinator of the First-Year Experience Program. In addition to her work with freshman programs, Natalie taught General Psychology and University Experience at the college level.

Natalie and her husband, Travis, welcomed their baby girl into the world on October 1, 2012. Natalie currently works in the home, focusing on family and supporting her husband's career. She looks forward to returning to higher education leadership, but for right now, she is enjoying serving in her most valuable leadership role to date: Mom.