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by

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Faculty Members' Perceptions of Undergraduate Students with Autism Spectrum Disorder at a Four-Year Public University

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Dedication

This treatise is dedicated to my children, Ryan Edward and Riley Elizabeth, who have been my inspiration throughout this endeavor. Both of you have motivated me to convey—not just in this work, but in all aspects of my life—the importance of advocacy, empathy, resilience, and unconditional love.

Acknowledgements

Throughout this almost decade-long journey, I've learned that it takes a village to earn a doctorate degree. Therefore, I would like to thank those of you who served as my cartographers and guides. Your support in helping me find direction and your encouragement in exploring different paths has allowed me to arrive exactly where I was meant to land, even if my travel plans changed along the way.

Thanks to those who were my sanctuary and shelter. You provided me a safe space to rest and recharge, and your compassion and comfort of a weary traveler allowed me to take care of myself and perform some preventative maintenance for the road ahead.

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Abstract

Faculty Members' Perceptions of Undergraduate Students with Autism Spectrum **Disorder at a Four-Year Public University**

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This study explored faculty members' perceptions of students diagnosed with autism spectrum disorder at a public four-year institution of higher education. As previous researchers suggest, the number of children aged six to seventeen identified with autism spectrum disorder in public schools increased by approximately 90% between 1994 and 2006 (Zager et al., 2013). As a result, the number of students on the autism spectrum who are entering college has grown exponentially over the past few decades. Therefore, it is imperative to continue to expand our knowledge of how faculty members ensure that students with autism spectrum disorder engage in their learning, interact with the course material, and connect with fellow classmates. Although previous studies have addressed various aspects of the learning needs of students with invisible disabilities (Gunn & Delafield-Butt, 2016; Schindler & Kientz, 2013; Hewitt, 2011; Scott & Gregg, 2000; Rush, 2011; Morrison, Sansosti, & Hadley, 2009), there is a need for additional research with a specific focus on students on autism spectrum disorder. Key findings

from this study examine how faculty members' personal experiences with disability can

influence their classroom environments, as well as how they overcome challenges

brought about by a lack of specificity in student accommodation letters. This study lends

itself to future research in understanding how disability is perceived locally (in the

classroom) as well as globally (within society).

Keywords: autism; faculty; perceptions; undergraduate; personal experience;

pedagogy

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Chapter I: Introduction and Context of the Study

Colleges and universities are experiencing an increase in enrollment of students with invisible disabilities, such as autism spectrum disorder and other types of neurodivergent executive brain functioning. Autism spectrum disorder is a lifelong neurodevelopmental disorder characterized by qualitative impairments in social interaction, difficulty with communication, and restricted repetitive and stereotyped patterns of activities, interests, and behaviors (APA, 2013). Many of these behaviors can interfere with an individual's ability to fully function in an educational or work setting, along with other areas of life. Although individuals with autism spectrum disorder tend to have social challenges, half of all individuals on the autism spectrum have average or above-average intelligence (USDHHS, 2018; Bakker et al., 2019).

As the definition, diagnosis, and treatment of neurodevelopmental disabilities such as autism spectrum disorder evolve, there is an increase in diagnosis at an earlier age than ever before. "Once considered a rare disorder, the prevalence of [some neurodevelopmental disabilities] have increased as much as twentyfold by some estimates in little more than two decades" (Boyd & Shaw, 2010, p. 212). As previous researchers suggest, the number of children aged six to seventeen identified with autism spectrum disorder in public schools increased by approximately 90% between 1994 and 2006 (Zager et al., 2013).

Similarly, the percentage of children aged three to twenty-one who are served under the Individuals with Disabilities Education Act (IDEA) has increased by almost 16% (15.7%) between 1991 and 2020 in the United States. This is also the case at the

state level. For example, in Texas that increase is almost 20% (19.7%) (NCES, 2021). Given the rising diagnosis rates of developmental disabilities in individuals without cooccurring intellectual disabilities (such as below-average intelligence or mental ability), it is likely that more young adults diagnosed with autism spectrum disorder will attend college and require appropriate supports (Davis et al., 2021; Neville, 2011). As a result, administrators at institutions of higher education and faculty members are increasingly being asked to address the needs and demands of students with invisible and developmental disabilities. "While a few...colleges are offering training [on teaching students with ASD] to faculty and staff, the numbers are still relatively small" (Gobbo & Shmulsky, 2013, p. 13). However, to help students achieve success, faculty are expected to be educated on how to best work in partnership with undergraduates on the autism spectrum enrolled in their courses. As McKeon et al., note, "Faculty who experience a growing number of students with diverse learning needs, including students with ASD, will benefit from information that expands their knowledge base and supports their use of accessible pedagogical practices" (2013, p. 360).

As researchers note, "The success of any college student, particularly in the academic realm, is to some degree determined by the type and quality of interactions that he or she has with his or her instructors" (Cook et al., 2009, p. 300). Research on how faculty members perceive invisible disabilities and their attitudes toward accommodating students with such disabilities initially emerged in the 1980s. However, most research at that time focused on students with learning disabilities and not on neurological or developmental disabilities such as autism spectrum disorder. For instance, early research

by Janstram indicated that there was likely no more difficult problem for faculty than the question of how far it is reasonable or appropriate to go in waiving specific requirements or modifying assignments to accommodate a student with disabilities (1979). Similarly, a prior study discovered that faculty perceptions of students with disabilities were often negative and that faculty members were concerned that students were not actually [learning] disabled, but rather unmotivated or underprepared (Lundeberg & Svien, 1988).

More recently, other researchers have attempted to illuminate faculty views about teaching students with autism spectrum disorder including accommodations (Scott & Gregg, 2000), faculty knowledge about students with disabilities (Donato, 2008), faculty concerns (Rush, 2011), parents' perspectives about the needs of and expectations for students on the autism spectrum who anticipated to attend college (Morrison et al., 2009), and difficulties faced by professors and their "understanding and expectations of students on the spectrum" (McKeon et al., 2013, p. 353), to name a few. However, as more students with autism spectrum disorder attend college, faculty are faced with additional challenges that need to be addressed and documented so that universities may provide better services to these students and best practices can be developed. As Kuder & Accardo (2017) suggest, additional inquiry may generate data to inform student service personnel and professors to identify those students who might take advantage of specialized assistance.

To this end, the present study focuses on faculty members' perspectives associated with students diagnosed with invisible disabilities, particularly autism spectrum disorder. Thus, this chapter sets the context of the study of faculty perceptions

of undergraduate students on the autism spectrum. It includes the statement of purpose, research questions, brief overview of the methodology, definition of terms, limitations and delimitations, and significance and assumptions of the study.

Statement of the Problem

The number of students with disabilities that have been successful in secondary education has increased considerably, and many are pursuing higher education. As a result, the percentage of students with disabilities enrolled in postsecondary institutions rose from 10.8% in 2007-08 to 19.4% in 2015-16 (NCES, 2019). While several studies have addressed the needs and types of support for these students, they tend to report aggregated results. As Haber et al. report, there is a "general lack of any specification of disability in studies beyond the IDEA disability category" (2016, p. 131).

Furthermore, initial studies focused on students with more "traditional" learning disabilities, such as dyslexia or dysgraphia, and not on invisible disabilities such as autism spectrum disorder. For instance, a study by Donato (2008) identified factors related to successful degree completion for students with invisible disabilities and the knowledge that faculty members have about accommodation issues, barriers to accommodations, and the need for empathy when working with this particular student population. If these factors are left unaddressed, students with autism spectrum disorder can feel isolated at the university, both in and out of the classroom.

Over time, studies of the learning needs of students with autism spectrum disorder have emerged in both the K-12 and university settings. For example, Gunn and Delafield-Butt (2015) have found evidence that including the "restricted interests" of students with

autism spectrum disorder contributes to their engagement, learning, and behaviors. At the university level, Morrison, Sansosti, and Hadley (2009) have examined parents' perspectives on the type of support and accommodations their students on the spectrum needed when attending college. However, according to Leddy (2019), most of the previous research concentrated on accommodations and compliance, rather than on extrinsic factors such as campus climate and faculty attitudes.

Others report that faculty members feel frustration with accommodations and the legitimacy of invisible disabilities at their institutions of higher education (Scott & Gregg, 2000). Frustrated faculty members do not validate the presence of invisible disabilities, and thus add to the stigma that these students are "working the system" by requiring that they be presented with, what some faculty have called, a "diluted college education" (Scott & Gregg, 2000, p. 161). Similarly, in a study of an elite college, Rush (2011) found that these universities face additional pressure to "perform" and that faculty at these institutions may have apprehensions about the student's ability to be successful, as well as concerns regarding the academic integrity issues they may associate with the provision of accommodations to this population of students. Rush also suggests that faculty members' personal experience with autism spectrum disorder and other invisible disabilities may affect their interactions with and how they provide accommodations for these students.

In addition, Hewitt (2011) reviewed the evidence base for interventions for social supports and other needs of higher-functioning individuals on the autism spectrum and discovered a lack of awareness [by faculty and staff] of the scope of difficulties

experienced by individuals with autism spectrum disorder. Addressing the consequences of failure in higher education for students on the autism spectrum, Schindler and Kientz (2013) state that these unsuccessful attempts may affect their ability to achieve economic and social independence, which can lead to poverty, isolation, homelessness, and other social and personal problems.

It is also important to note that as more students with autism spectrum disorder attend postsecondary education, their unique social, emotional, and learning needs require a different mindset from university administrators, student services staff, and faculty members. Those leading the campus and the classroom are expected to be familiar with instructional strategies to address these students' unique learning styles, as well as contribute to the creation of a nurturing campus climate that welcomes these students. While some researchers have focused on students with autism spectrum disorder and advanced best practices to teach these students in the K-12 school settings (Gunn & Delafield-Butt, 2016), as well as in-service teacher attitudes toward students on the autism spectrum (Chung et al., 2015), few have specifically addressed faculty members' perception and attitudes about students with autism spectrum disorder who have transitioned to higher education.

Therefore, it is imperative to continue to expand our knowledge of how faculty members ensure that students with autism spectrum disorder engage in their learning and interact with the course material and fellow classmates. In addition, faculty members need to consider how they present information to a class of varied learning interests and abilities, how they measure academic success in the classroom, and the effect instructors

often have on a student's sense of belonging on campus. Although previous studies have addressed various aspects of the learning needs of students with invisible disabilities (Gunn & Delafield-Butt, 2016; Hewitt, 2011; Morrison, et al., 2009; Rush, 2011; Schindler & Kientz, 2013; Scott & Gregg, 2000), there is a need for additional research with a specific focus on students with autism spectrum disorder. As Haber et al. (2016) indicate, "Disability categories can be quite broad (e.g., mild, moderate, and severe intellectual disabilities), and a greater precision in characterizing meaningful subgroups within such broad categories would be desirable" (p. 154).

In addition, these researchers found that demographic information and differentiation of disability tend to be missing. Furthermore, others suggest that "the limited number of previous studies, generally small size samples, and paucity of empirical evidence limits the generalizability of the results" (Kuder & Accardo, 2017, p. 730). Therefore, additional research may uncover faculty perceptions and experiences as well as challenges they face while attempting to specifically meet the learning styles and preferences of students with autism spectrum disorder. Such research may inform higher education leadership, student services officers, and faculty about how to support and advocate for these students, build a positive institutional environment, and design services critical for their acceptance, involvement, and success in college.

Purpose of the Study

As more students with invisible disabilities have been successful through special education programs during their K-12 instruction (Chan, 2016; Gotlib et al., 2019) an increasing number of students are enrolling in universities. As a result, it is expected that

administrators and faculty members address the academic and social needs of these students, specifically students with neurodivergent learning styles such as autism spectrum disorder. Thus, the purpose of this study was to examine faculty perceptions about how they acknowledge or identify, embrace, and respond to the different and unique learning styles these students bring to campus, and, more importantly, how they create classroom environments that promote these students' success.

Research Questions

- 1. How do faculty members describe their experiences with students with autism spectrum disorder at a large, public, four-year university?
- 2. What are the perceptions of faculty members about students with autism spectrum disorder at a large, public, four-year university?
- 3. How do faculty members address the challenges they encounter when working with students with autism spectrum disorder at a large, public, four-year university?

Brief Overview Of Methodology

This study used a qualitative approach to examine faculty members' perceptions, experiences, and challenges associated with students on the autism spectrum. Because of its interdisciplinary origin, qualitative methods have a common goal of understanding rather than measuring (Forman et al., 2008). Therefore, a qualitative approach is appropriate for this study due to the sensitive nature of the topic as it will allow for more elaborate, free-form answers that could not be captured in a quantitative survey with rigid parameters. In addition, qualitative research allows for more personal narratives and

anecdotal answers which may surface themes from the data. According to Jones, "Qualitative research begins by accepting that there is a range of different ways of making sense of the world and is concerned with discovering the meaning seen by those who are being researched and with understanding their view of the world rather than that of the researchers" (1995, p. 2).

Participants for this study were purposely selected faculty members at a large state university in a south-central state (referred to as The University) who teach primarily first-year students and/or entry-level courses such as "University 101." Additionally, faculty who teach other "Introduction to" courses were chosen, as most students enrolled will likely be in their first year at The University. Given that these introductory courses are normally larger-sized classes, an effort will be made to represent both large and small classes.

The first data source for this study included a general survey about knowledge and experiences with autism spectrum disorder (Appendix D). As Jansen (2010) states, "A survey is a systematic method for gathering information from a group for the purpose of constructing attributes of the larger group of which these individuals are members" (p. 2). Jansen goes on to note that the purpose of a qualitative survey is not necessarily the distribution of surveys, but instead, the diversity you gain from them (2010).

Interviews were the second data collection source and were completed based on an interview protocol and guide (Appendix F). Interviews allow for self-disclosure from the participants, including a depth of information they may share about themselves and their experiences (Knox & Burkhard, 2009).

The third data source was an interview with leadership in The University's Disability Services Office. This consultation provided relevant information about the setting, the participants, and the phenomenon of the study (Morse & Richards, 2002). Through this interview, the researcher was able to expand on, clarify, and corroborate the key findings of the study, including accommodation guidelines, alternate pedagogies, and previous feedback from faculty.

Theoretical Framework

Given the purpose of this research, the social constructivist framework guided' the study (Appendix A). Social constructivism emphasizes the importance of both social and physical aspects of learning and being. McRobbie & Tobin describe social constructivism in learning environments by stating that there are multiple ways meaning can be constructed by individuals as new information interacts with their existing knowledge. They add that while knowledge is personally constructed, it is formed by cultural and societal experiences (1997).

Framing disability as a social construct has powerful implications for our understanding of how students with disabilities are accepted by and engage with their higher education environments. According to Creswell (2012), the social constructivist paradigm is often combined with interpretivism. In this worldview, he states, "Individuals seek to understand the world in which they live and work" (p. 24). Human knowledge is then culturally constructed rather than objectively discovered and what we understand about the world (in this instance, disability) cannot be separated from what we believe

about it (Gallagher et al., 2013). As such, constructivism claims that meanings are constructed by human beings as they engage with the world around them (Crotty, 2012).

If a disability is understood as a social construct, Critical Disability Theory must also be included in the theoretical framework of this study. "Critical Disability Theory is one of the newer disciplines in scholarship, and it considers disability both as a lived experience, where people with disabilities are the key factor in how society defines them, but also as a social and political definition based on societal power relations" (Reaume, 2014, p.1248). Critical Disability Theory also lends itself to this work as it is "an interdisciplinary subject that is as much at home with theory as with pragmatic solutions" (Shildrick, 2012, p. 30).

Definitions of Key Terms

Autism Spectrum Disorder: Autism spectrum disorder (ASD) is a neurodevelopmental disability that can cause significant social, communication, and behavioral challenges. While no visible traits set them apart from other people, persons with autism spectrum disorder may communicate, interact, behave, and learn in ways that are different from others. The learning, thinking, and problem-solving abilities can range from gifted to severely challenged. Some people with autism spectrum disorder need a lot of help in their daily lives; others need less (CDC, 2020).

Autism Spectrum Disorder Diagnosis: Refers to several conditions that used to be diagnosed separately: autistic disorder, pervasive developmental disorder not otherwise specified (PDD-NOS), and Asperger syndrome. These conditions are now all called autism spectrum disorder (CDC, 2020).

Developmental Disabilities: A group of conditions due to an impairment in physical, learning, language, or behavior areas. These conditions begin during the developmental period, may impact day-to-day functioning, and usually last throughout a person's lifetime (CDC, 2020).

Disability: Lack of adequate power, strength, or physical or mental ability; incapacity; a physical or mental handicap, especially one that prevents a person from living a full, normal life or from holding a gainful job; anything that disables or puts one at a disadvantage; the state or condition of being disabled; legal incapacity; legal disqualification (Dictionary.com, n.d.).

Empathy: Empathy is the ability to recognize, understand, and share the thoughts and feelings of another person, animal, or fictional character. Developing empathy is crucial for establishing relationships and behaving compassionately. It involves experiencing another person's point of view, rather than just one's own, and enables prosocial or helping behaviors that come from within, rather than being forced (Sussex Publishers, 2023).

Individual with a Disability: Defined by the Americans with Disabilities Act as a person who has a physical or mental impairment that substantially limits one or more major life activities, a person who has a history or record of such an impairment, or a person who is perceived by others as having such an impairment (ADA, 1990).

Invisible Disabilities: Invisible disabilities are usually defined as those that don't manifest in ways that are immediately obvious to others. This is a loosely-defined blanket category that may include any number of disabilities, impairments, or medical conditions.

This can include chronic pain or fatigue; cognitive or learning disabilities or differences; head or brain injuries; hearing disabilities or impairments; vision disabilities or impairments; and much more (Accessibility.com, 2021).

Neurodiversity: Neurodiversity describes the idea that people experience and interact with the world around them in many different ways; there is no one "right" way of thinking, learning, and behaving, and differences are not viewed as deficits.

The word neurodiversity refers to the diversity of all people, but it is often used in the context of autism spectrum disorder, as well as other neurological or developmental conditions such as Attention Deficit and Hyperactivity Disorder or learning disabilities. (Baumer, 2021).

Universal Design for Learning: Universal Design for Learning (UDL) is a framework to guide the design of learning environments that are accessible and challenging for all. Ultimately, the goal of universal design is to support learners to become "expert learners" who are, each in their own way, purposeful and motivated, resourceful and knowledgeable, and strategic and goal driven. Universal design aims to change the design of the environment rather than to change the learner. When environments are intentionally designed to reduce barriers, all learners can engage in rigorous, meaningful learning (The UDL Guidelines, 2022).

Limitations and Delimitations

In qualitative research, it is important to acknowledge certain limitations and explain the related delimitations. Qualitative research studies are intended "to answer questions about the complex nature of phenomena, often to describe and understand the

phenomena from the participant's point of view" (Leedy & Ormrod, 2005, p. 94). These usually focus on a small sample purposefully selected. Therefore, the results cannot be widely generalized to populations that are different from the sample. The generalization of the present study findings is up to the consumer of the study.

It is also important to note that data related to students with disabilities will be limited to those students who disclose their disabilities and register for services through the Disability Services Office at The University. Although the research questions focus on faculty members' perceptions and experiences working with students who identify as having autism spectrum disorder, the actual number of students who may be potentially impacted by barriers to accommodations and/or challenges faculty members face toward helping these students develop their learning and sense of belonging may likely be higher.

In addition, this study only focused on faculty in a large, public, four-year university setting, who report having experience teaching students with developmental disabilities, including autism spectrum disorder. Only faculty who teach undergraduate classes, both large and small, were selected for this study. The intent is to determine faculty perceptions and not to evaluate their teaching or their interaction with students. The study did not include any university administrators or student services officers, or undergraduate students in the sample.

Significance

Given the need to better address the academic and social needs of college students with autism spectrum disorder, researchers have called for additional studies (Gunn &

Delafield, 2015; Haber et al., 2016; Kuder & Accardo, 2017; LeGary, 2017; Morrison, Sansosti & Hadley, 2009; Rush, 2011) that may differentiate students' needs by specific disabilities, add gender as a variable, and illuminate faculty perspectives about how they engage them in classes. The present study results add to the scholarship around the needs of students with invisible disabilities (such as students with autism spectrum disorder). Specific approaches to better serve these students and address their social, emotional, and academic needs have also be discovered.

Further, this study contributes to an enhanced understanding of the intersectionality of disability and higher education, especially as the attitudes and biases of those leading the classrooms may affect student academic experiences. Similarly, the findings will also inform institutions of higher education about practical applications and enhancements that can be considered and implemented. Lastly, through the engagement and reflection of the participating faculty, these study results provide insight to educators who need to expand their own understanding of invisible disabilities in higher education.

Assumptions

The study will be conducted on the bases of certain assumptions. First, that additional data from The University's Disability Services Office will be accessible regarding the number of enrolled students with reported disabilities, accommodation reports, and transcripts of past meetings or interviews with faculty by members of the Disability Services Office staff (if needed). These transcripts may be useful in establishing past experiences and/or campus climate around students with disabilities. Second, it is assumed that the number of students with autism spectrum disorder

attending institutions of higher education will continue to rise and that faculty members will need support and training to better understand this student population. Third, it is assumed that faculty who teach undergraduate students on the autism spectrum will be willing to share their insight and be open to participating in the study.

Summary

This chapter included a description of the contextual aspects of the study. In addition, the statement of the problem, purpose, research questions, and other related aspects are included. Chapter 2 focused on a brief overview of the foundational literature related to mindsets around disability (with emphasis on faculty mindsets) and how they have evolved over time. Specifically, the literature review focused on college undergraduate students with autism spectrum disorder along with research regarding their sense of belonging in higher education. The literature review also highlighted studies about faculty attitudes and perceptions toward students with invisible disabilities, and how this may impact the student experience. Chapter 3 presents the methodology to conduct the study. It provided a rationale for why a qualitative research approach is most appropriate for this study. In addition, the research design including the population, sources of data, limitations, and the data analysis plan is explained.

Chapter II: Literature Review

Public schools have experienced an increased enrollment of students identified with invisible disabilities including those diagnosed with autism spectrum disorder. As these students successfully graduate, they are pursuing post-secondary education. As a result, universities face the need to ensure these students' success while in college. Although interest in the experiences of college students with autism spectrum disorder has risen in recent years, the focus and results tend to center around the student experience with documented personal accounts from students with high-functioning autism (White et al., 2016). Far less research has focused on the transition to postsecondary education for students on the autism spectrum, and thus it may be the case that many universities are not adequately equipped to successfully support this student population in higher education (Brown, 2015). Earlier research shows that many factors, some intrinsic to the student and others extrinsic to the campus, moderate success in higher education for all students. (Wolf, 2001). Therefore, it is imperative that further research illuminates the distinguishing unique needs and oftentimes gifted talent of students diagnosed with autism spectrum disorder as they pursue the dream of higher education.

Previous research has noted that the percentage of total public school enrollment of children served by federally supported special education programs nearly doubled from 8.3% to 13.7% between 1976 and 2018 (NCES, 2019). Similarly, the percentage of students with disabilities enrolled in postsecondary institutions rose from 10.8% in 2007-

2008 to 19.4% in 2015-16 (NCES, 2019). It is also suggested that increasing numbers of students with invisible disabilities such as students on the spectrum are entering postsecondary institutions (O'Shea & Kaplan, 2018; Berg et al., 2017). In fact, since 2014, students with invisible disabilities constituted the largest subgroup of students with disabilities on college campuses in the U.S. (O'Shea & Kaplan, 2018). With more students being diagnosed with invisible disabilities and participating in special education programs during their K-12 instruction (Chan, 2016; Gotlib et al., 2019), and attending college, university administrators are finding it necessary to address the needs of these students. The reality of the increasing numbers of these college students calls to reexamine campus climates and faculty perceptions and how they not only tolerate, but also embrace, the differences and unique learning styles this population of students brings to campus.

Further, as students with autism spectrum disorder enter college, it is clear that administrators, student affairs officers, and faculty members will need guidance to better understand the distinct learning styles, and unique methods to promote successful social interactions. Similarly, campus administrators will need to reconsider such matters as university-wide diversity training (with a particular focus on educating faculty members), determining support staff to student ratios, requests for housing accommodations, unique avenues for parental involvement, and so on.

There has been a change in the way disability is viewed in society, and thus how people with invisible disabilities are accepted (or not) in educational settings. For instance, early medical-only models of disability have moved to more inclusive social

constructs of disability, allowing acceptance and appreciation of the talents and unique abilities this population brings to college campuses. The college classroom can be seen as a microcosm of the college experience, where the environment (including the instructors) challenge students diagnosed with autism spectrum disorder, academically, socially, and developmentally. Thus, a look into the understanding and perceptions of disability of faculty members, in addition to how they interact with these students, may reveal the challenges facing higher education as well as the need for accommodations that are conducive to their success.

Therefore, this chapter provides an assessment of the literature that serves as a foundation for a study about faculty perceptions of students diagnosed with autism spectrum disorder. This chapter is organized in six strands including: defining disabilities; federal policies addressing college students with disabilities; invisible disabilities in education; autism spectrum disorder; characteristics and challenges of college students diagnosed with autism spectrum disorder; institutional supports and resources for college students diagnosed with autism spectrum disorder; and faculty perceptions of these students.

Finally, recommendations for further inquiry are offered. As indicated by previous researchers, there is a need to continue to focus on how promote the academic success of college students diagnosed with a particular focus on faculty of undergraduate students. As McKeon et al. state: "Faculty who experience a growing number of students with diverse learning needs in their courses, including students with ASD, will benefit

from information that expands their knowledge base and supports their use of accessible pedagogical practices." (2013, p. 360)

Defining Disability

The meaning of disability has been understood throughout time in a variety of ways (Fitzgerald, 2006; Haegele & Hodge, 2016; Iudici et al., 2019; LoBiondo & Sheppard-Jones, 2008). The way in which disability is comprehended is important because the language people use to describe individuals with disabilities influences their expectations and interactions with them (Barton, 2009; Haegele & Hodge, 2016). However, the construct of disability has changed over the last thirty years from a model that focused on the defect of a person to one that considers an individual's disability based on the interactions between personal and environmental factors (Buntix & Schalock, 2010). In fact, in 2006 the United Nations defined disability as "an evolving concept and claim that results from the interaction between persons with impairments and attitudinal and environmental barriers that hinder their full and effective participation in society on an equal basis with others" (Iudici et al., 2019, p. 171).

The social constructivist framework of disability aims to situate disability in the environment rather than the physical body. "Disability, from this point of view, requires not individual medical treatment or other forms of intervention, but changes in society" (Siebers, 2008, p. 73) In this framing, the environment does not only include physical surroundings and/or barriers, but also economic, cultural, institutional, and educational practices that can impede social mobility, educational attainment, and acceptance in society (Gallagher et al., 2014).

In her 1996 work, Jones discusses disability as a social construction and how the social constructivist perspective allows for nondisabled persons to understand and construct the existence of people with disabilities. Jones goes on to state that to view disability as social constructed is to push people with disabilities to the margins and create handicaps out of characteristics. This, Jones summarizes, maintains oppressive social structures that create distinctions between superiority and inferiority and disability and ability.

Disability framed as a social construct has powerful implications for our understanding of how students with disabilities are accepted by and engage with their higher education environments. In 2012, Creswell notes that the social constructivist paradigm is often combined with interpretivism. In this worldview, Creswell states, "individuals seek to understand the world in which they live and work" (p. 24). Human knowledge is then culturally constructed rather than objectively discovered and what we understand about the world (in this instance, disability) cannot be separated from what we believe about it (Gallagher et al, 2014). As such, constructivism claims that meanings are constructed by human beings as they engage with the world around them (Crotty, 2012).

Applying the social constructivist model of disability is critical when considering implications for students with disabilities in higher education. As mentioned earlier, the goal of social constructivist research is to rely as heavily as possible on the participants' views of the situation. Therefore, it is plausible to consider that students with disabilities construct meaning of various aspects of higher education as they engage with the campus and that individuals on campus (such as faculty members) construct their views of

students with disabilities based on their understanding of and interaction with this student population. Gallagher et al. (2014) state that "none of our knowledge is mindindependent or value-free and that we can only see the world from our place within it."

(p. 1124) This perspective is particularly important when the focus is on students with invisible disabilities, such as autism spectrum disorder, as the perception and acceptance of these disabilities require individuals to suspend judgment and to acknowledge and accept what cannot be seen. To achieve this, it is relevant to understand how both federal and state policies address the needs of students with invisible disabilities in general and particularly those diagnosed on the autism spectrum.

Federal Policies Addressing College Students with Disabilities

The passage of the Rehabilitation Act in 1973, the Individuals with Disabilities

Education Act (IDEA) in 1975, and the Americans With Disabilities Act (ADA) in 1990

guaranteed equal access to education for individuals with disabilities. These legislative

mandates have catalyzed an increase in postsecondary enrollment among students with

disabilities for more than three decades. For example, according to the National Center

for Education Statistics, 29% of persons 16 or older who reported having a disability had

either attended some college or had completed a bachelor's degree or higher by 1986. In

1994, that same data point had risen to approximately 45% (NCES, 2019). By the 2008
2009 academic year, it was reported that approximately 88% of 2-year and 4-year degree
granting postsecondary institutions had enrolled students with disabilities (NCES, 2019).

All individuals with disabilities are protected under The Americans with

Disabilities Act of 1990. ADA is a civil rights law that prohibits discrimination against

individuals with disabilities in all areas of public life, including jobs, schools, transportation, and all public and private places that are open to the public. Title II of the ADA applies to State and local government entities and protects qualified individuals with disabilities from discrimination based on disability in services, programs, and activities provided by State and local government entities.

Beginning in the 1990s, coinciding with the new Americans with Disabilities Act, educational reforms became more ambitious than in earlier decades. Many of the reforms proposed since 1990 have demanded that schools adopt a new way of thinking and as well as embark in unfamiliar approaches to teaching (Fowler, 2009). At the turn of the century, children with disabilities were slowly being integrated into the general education classrooms, and colleges and universities would soon begin to see an increase of these very students applying and being admitted to their schools.

College students with disabilities who are protected by laws prohibiting discrimination and those requiring equal levels of access to academic services, environments, and resources need campus-based resources (Best Practices, 2016). Recent data shows a growing number of post-secondary students are indeed making use of the available legislation for mental health disability accommodations (Gotlib et al, 2019), which may leave institutions of higher education struggling to provide appropriate accommodations. Additionally, students who have invisible disabilities, such as autism spectrum disorder, are often thrust from a setting of support and structure to one of unrestricted and overwhelming freedoms and choices—choices which may be influenced by their institution, campus climate, as well as how easily they can navigate these

changes. In addition, these students now must make decisions about how or when to self-disclose, their treatment and medication plans, and how to replicate a semblance of the structure they once had as minors in the K-12 pipeline. Thus, it is important to understand how higher education is responding or addressing these disabilities.

Invisible Disabilities in Higher Education

Much of the early research on invisible disabilities was focused on providing working definitions of learning disabilities (LD) and methods of accommodation that university administrators, faculty, and staff may adopt (Gajar et al., 1982), or for families looking for specific programs and institutions of higher education that have "LD programs and services" (Cordoni, 1982). For example, Cordoni states that lists of sources were often put together to assist parents and students in finding programs specific for "the Learning Disabled" (1982). In addition, Cordoni suggests that families look for key phrases such as "accepts LD students" or "allows LD students to enroll" when searching program and institutional information. The fact that such language existed, as well as the need for a list of schools that allowed students with Learning Disabilities to enroll, does show a now-forward progression in the general knowledge, acceptance, and understanding of students with invisible disabilities (including learning disabilities) at that time.

On the other hand, the perceptions, and possible misperceptions, of students with invisible disabilities might be tied to how these students were understood and described in the past. In "The Learning Disabled University Student: Signs and Initial Screening," Jonathon Cohen states that:

The vast majority of students who experience serious difficulties learning or working commonly do so for one or more of the following reasons: psychological problems, malingering, inadequate past education, or low intelligence. On the other hand, a small but significant number have academic problems that are unrelated to these causes; these students are learning disabled. (2004, p. 22)

What this article suggests is that students who have invisible disabilities could not also have inadequate past education or psychological problems. It also suggests that students who do not do well academically are lazy or trying to "work the system."

Cohen's effort to shine a noble no-fault light on students with invisible disabilities is contributing to the misunderstanding that students with any disability are "working the system" and inventing a disability to try to fool universities into giving them equal or even additional opportunities.

On the contrary, previous researchers acknowledge that students with invisible disabilities, particularly those diagnosed with autism spectrum disorder, are entering college in increasing numbers, and often they have difficulty adjusting to the rigors of college as well as their newly found independence (Rush, 2011). Furthermore, it has been reported that these students' aspirations are not different from their peers (Shmulsky et al, 2018). However, students diagnosed on the spectrum "often need supports that are above and beyond those typically available" (McKeon et al., 2013, p. 353). Thus, there is a need to clearly understand autism spectrum disorder to avoid misconceptions associated with this invisible disability.

Identity Development for Students with Invisible Disabilities

Undoubtedly, considering how students develop socially, developmentally, and academically can provide a framework for university administrators to structure their work. Student development theory and the study of college student identity has existed in some form since the mid-twentieth century and can be defined as the ways that a student grows, progresses, or increases his/her development capabilities because of enrollment in an institution of higher education (Evans et al., 1998). The central question of "Who Am I?" was first asked (in the context of identity formation in education) by Erik Erikson in his groundbreaking research on identity in 1959 and will likely be asked of countless college-aged students as they search for who they are and who they want to be.

Following Erikson's questions surrounding identity was Chickering, who first introduced the idea of psychosocial identity theory in college students (Chickering, 1969; Jones & Abes, 2013). In 1989, Robert Coles stressed the importance of stories and narratives to inform theory in his work *The Call of Stories*, which can be understood to follow in some way the Disability Movement mantra of "Nothing About Us Without Us," calling for personal accounts to be validated in the same way as medical or scientific research. More recently, Carolyn Mueller (2018) stated that the sociocultural view of identity development holds that identity development is fundamentally a social process, complicated by a constant stream of feedback that students receive both about who they are as well as what others expect from them (p. 265).

"Research indicates that students' endorsement of having a disability as an aspect of one's identity has implications for their use of disability support services as well as for academic persistence and success" (O'Shea & Kaplan, 2018, p. 358). One of these implications is that identifying as having a disability carries with it a negative social stigma. As a result of this stigma, many students with disabilities choose not to make use of disability support services and offices in college. Newman et al. (2009) estimated that less than 40% of students with disabilities identified themselves as such in college, with only 24% of self-identified students making use of disability services on their campuses.

In his 1995 article "Who am I? Concepts of Disability and Their Implications for People with Learning Difficulties," author Philip Harris argued that people with learning difficulties have been categorized, by non-disabled people, as "belonging" to a devalued social group with a rigid boundary based on IQ level (p. 341). New research can bring an end to this assumption by examining how learning difficulties and invisible disabilities are defined by non-disabled people, and work to move toward a greater understanding that disability is a form of diversity and can be relative to the group.

Building on Harris' work, Boyd and Shaw summarized the fundamental challenge facing higher education by stating that the interface between policy and practice will continue to shape our work with individuals with invisible disabilities. In addition, Boyd and Shaw stress that it is imperative that scientists, practitioners, and families bridge any research to practice gap to ensure that sound, empirically based practices are being used to assist individuals with invisible disabilities (2010, p. 217).

Social identity theory and social categorization theory, subsets of student development theory, can also be used to consider how the self-concept of an individual is influenced positively or negatively by his or her group membership as well as by the perceived status of those groups (MacLeod et al., 2013). For example, to the extent that a student with an invisible disability feels a sense of belonging in the collegiate setting may be affected by how others on campus perceive their intellect, social skills, and contributions to a diverse student body. Strayhorn (2012) defines sense of belonging in college as a "basic human need" and motivation (p. ix). Future research in this area may give students with autism spectrum disorder a voice as they discuss, among other items, whether they feel a sense of belonging on their college campus.

Autism Spectrum Disorder

Initially, autism spectrum disorder was viewed as an illness by the medical model, and a search for a "cure" has been the norm. In fact, the Individuals with Disabilities Education Act (1975) did not include autism spectrum disorder as a disability category until the reauthorization of the law in 1990 (A History of IDEA, 2023). With the increase in awareness and available therapies, the focus shifted to disability and inclusion. However, as more individuals on the autism spectrum express themselves and their needs, the focus now has shifted from the medical model to the social model of neurodiversity, thereby implying that autism is actually a variant of normal human development and human diversity (Subramanyam et al., 2019).

Autism spectrum disorder is a complex neurological and developmental (sometimes referred to as neurodevelopmental) disorder that affects a person's social

communication, learning, and behavior (APA, 2013; USDHHS, 2022). Further, autism is considered a spectrum, as the degree of impairment in functioning ranges from mild (often referred to as high functioning) to severe. According to *Autism Speaks* (2022) and the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) (APA, 2013), which is deemed the standard reference that healthcare providers use to diagnose mental and behavioral conditions, the severity is based on social communication impairments and restricted repetitive patterns of behavior.

Addressing neurodevelopmental disorders, the DSM-5 outlines the Autism Diagnostic Criteria through five major characteristics and symptoms: 1) Persistent deficits in social communication and interaction across multiple contexts; 2) Restricted, repetitive patterns of behavior, interests, or activities; 3) Symptoms are present in an individual's early developmental period; 4) Symptoms cause clinically significant impairment in social, occupational, and educational areas, and; 5) Symptoms are not better explained by intellectual disability or generalized developmental delay (APA, 2013). "As diagnostic tools for ASD are distributed and used more widely, and as awareness and prevalence of ASD continues to rise, researchers and clinicians are increasingly faced with extremely complex referrals for ASD diagnostic assessment" (Thurm et al., 2019, p. 526).

Some individuals, including college students, on the autism spectrum are considered high-functioning, meaning an individual with autism has average- to above-average intelligence and a high verbal IQ (Ghaziuddin & Mountain-Kimchi, 2004).

Therefore, it stands to reason that "some students on the very high functioning end of the

spectrum may gain admission to a university without ever being identifying as individuals with ASD. As a result, these students go unnoticed by professors until sensory, social, and learning styles cause them to fail. Despite adequate cognitive ability for academic success, many students with ASD never finish college" (Rando et al., 2016, p. 257). Although certain characteristics may lead to a successful college journey, students diagnosed with autism spectrum disorder continue to face academic challenges in higher education settings.

Characteristics and Challenges of Students Diagnosed with Autism Spectrum Disorder

Given the number of students diagnosed with autism spectrum disorder who attend both public schools and postsecondary institutions, researchers have identified certain characteristics that differentiate these students from their peers, as well as the challenges they face when an institution is not well prepared to address their needs.

A prominent characteristic of students with autism spectrum disorder is that they often exhibit restricted interests. Restrictive interests can be characterized as having an intense interest in very specific topics that often include facts, numbers, and figures. "These interests are objects or topics that individuals with ASD pursue with focus and intensity, for example, demonstrating a fascination with hurricanes, that can restrict engagement with other objects or topics" (Gunn & Delafield-Butt, 2016, p. 409). This characteristic can be a strength in the classroom, as these focused interests allow people with autism spectrum disorder to be able to learn things in detail and remember information for extended periods of time. (USDHHS, 2022). According to a faculty

member who participated in research surrounding this topic: "[Students with ASD] are expert in a subject or two or three that they deeply care about and study and are familiar with...sometimes it's good to let them write about that subject, where they feel great confidence and are perhaps an expert" (Gobbo & Shmulsky, 2014, p. 18). This trait also allows people on the autism spectrum to excel in topics like math, science, or music which tend to have concrete solutions, fixed formulas, and detailed specificity.

Another characteristic is repetitive, self-stimulatory behaviors, also known as stimming. Stimming can present itself in many ways, but most commonly displays as echolalia (repetitive speech), hand flapping, rocking, and/or fidgeting (*What is stimming*, 2022). For years, repetitive behaviors were considered a result of trauma or deprivation, and that they had a negative effect on learning. However, more recent research suggests that these repetitive behaviors have been misunderstood. Contrary to earlier thinking, these repetitive behaviors may be a sign of self-soothing and a way for people on the autism spectrum to feel a sense of control in an otherwise stressful situation (Kapp, 2019).

Students on the autism spectrum also tend to have difficulty with social communication, social cues, and interaction with others. Specific traits in this grouping may be exhibited through little to no eye contact during conversations, displaying or responding with facial expressions that do not match the situation, or not sharing interests or emotion when interacting in social settings (NIMH, 2022). Although these behaviors might indicate that students with autism spectrum disorder are not paying attention, the opposite is often true. People on the spectrum are often strong visual and auditory

learners, with focus precision and an eye for detail, as well as remarkable powers of observation.

Additionally, these students may have extreme sensitivity (hyper, hypo, or both) to sensory input such as light, noise, temperature, taste, smell, and textures (such as clothing or bedding) (NIMH, 2022). These sensory issues may cause a person with autism to practice sensory avoidance, wherein they try to get away from stimuli that neurotypical people can ignore or tune out. For example, they may cover their ears or eyes, avoiding tags in clothing, or not participate in an activity. According to *Autism Speaks*, if a person with autism is experiencing hyposensitivity, they may have a constant need for movement, or a need to create sensory stimulation such as rocking, touching objects, or making loud noises (2022).

While research suggests that several of the characteristics of college students diagnosed with autism spectrum disorder allow them to persist and achieve success in college, these students must overcome various autism spectrum disorder-associated challenges that are often misrepresented by administrators and faculty. Researchers suggest that these students "face challenges to learning related to processing complex or nuanced language, developing and maintaining social relationships, organizing and managing time, communicating intent, taking listener perspective, and being flexible to change" (McKeon et al., 2013, p.358). Many of the traits that make a neurotypical student successful in college, such as interacting with professors, building relationships, and tracking deadlines and assignments are part of the brain's executive functioning, an

area of the brain that is not as developed (and may never fully develop) in people with autism spectrum disorder (Anderson & Butt, 2017).

It can be challenging for students with autism spectrum disorder who have restricted interests to learn class material and equally challenging for faculty to teach these students. Instructors may try to discourage students from engaging with their restricted interests, as they believe it can lead to academic delays and not mastering prescriptive curriculum. However, research has suggested that restricted behaviors can act as motivators for students on the autism spectrum by allowing the student to express their interests, passions, and conduct extensive research on a given topic (Gunn & Delafield-Butt, 2016).

Repetitive behaviors can also be difficult to manage in the college classroom as most research shows that stimming, for example, can lead to social judgment and rejection, and that many people with autism spectrum disorder feel like social outcasts (Kapp, 2019). Fear of being labeled as weird or immature causes many students on the autism spectrum to suppress or conceal their stims. Suppressing these behaviors can be detrimental to their health and wellness as it becomes difficult for students with autism spectrum disorder to self-regulate, which can lead to sensory overload and burnout, Furthermore, stifling stimming requires students on the spectrum to focus and expend their energy on restraining their behavior, which in turn impedes their classroom participation.

Often, the classroom environment presents social stressors for students with autism spectrum disorder that may impede their academic performance. For example, the

inability to respond appropriately and read facial cues can cause challenges in a classroom setting (LeGary, 2017). This was a focal point of a recent study of college students on the autism spectrum. Here, students voiced that group projects were comprised of a plethora of social interactions and assumptions, including knowing what is expected, engaging in conversations, and asking questions of the faculty members. One student spoke to these challenges:

You work on a project in a group to solve a problem. But besides the fact that you have to solve something, you also have to actively consider: 'How am I functioning in the group?' That causes extra stress and is yet another energy cost that you have to invest to perform well in a group project. You need to find an answer to the set problem, but you also have to make sure you are functioning in a group properly. So, yes, that is quite difficult (Van Hees et al., 2015, p. 1679).

In a similar study, faculty members commented that students in their classes often missed verbal and nonverbal cues, were unsure of how to participate or contribute to class, and often went on about a topic after the subject had changed. In addition, faculty members discussed academic difficulties due to lack of social understanding and cues. The authors write:

One faculty member stated: 'I had a student who didn't want to work with any of his classmates, and the student was on the spectrum, and he sort of justified the fact that he didn't want to work with them, he said well, I'm smarter than they are.' In this case, the student's justification violated etiquette for talking about one's peers. Group work can move slowly, and frustration can build in

individuals with ASD as well as in their neurotypical peers. Several respondents mentioned that students with ASD often prefer individual work to group work and that their peers may avoid working with them (Gobbo & Shmulsky, 2014, p. 17).

A college environment is often less than ideal for students on the autism spectrum. There are many challenges regarding sensory issues in the classroom, such as crowded lecture halls with pre-class discussions, the need to attend classes under fluorescent lights, and the need to get up and move around to decrease stimuli. A student with autism spectrum disorder shared his experience with his mother, who relayed this story about her son's first college class:

As they did their first day of class [the professor] was rattling off the rules: 'No gum chewing; you may not leave the class before the end; you may not be late more than two times, or you fail the class; there is no eating in this classroom.' So, my son is immediately thinking—it was a three-hour class—'Oh my God, what if I need to pee? It is going to be the end of the world. Oh my God, if I cannot eat I am going to die!' So instead of asking her questions, he is just in his mind freaking out...By the second class, about half-way through the class, he literally ran screaming from the class. (Anderson & Butt, 2017, p. 3034)

In a similar situation, a father recounts the short time his son spent in college before needing to return home:

He lasted 68 days. He was able to stay current at C-level in his work...He never went to the dining hall once. He could not handle the dining hall, he could not handle the noise, he could not handle the whole thing. He would go to Target

once a week on the University shuttle bus and get Pepsi and Goldfish crackers, and that is how he lived for 68 days. (Anderson & Butt, 2017, p. 3037)

Although these challenges were with the dining hall, a space outside of the classroom, it is important to acknowledge that being able to successfully manage coursework often correlates to the ability to navigate their college experience outside of the classroom.

Research by McKeon et al. summarizes that students with autism spectrum disorder present unique and complex challenges for college faculty (2013). They argue that to create a positive learning environment in college, it is critical to analyze and understand how faculty perceive and support students on the autism spectrum.

Institutional Supports and Resources for College Students with Autism Spectrum Disorder

"Colleges and universities should be prepared to support undergraduate students with autism spectrum disorder. Once conceptualized as a rare disorder, ASD diagnostic rates continue to climb" (Viezel et al., 2020, p. 234). Although students diagnosed with autism spectrum disorder bring specific characteristics and needs to post-secondary education that can be challenging, and it may be difficult for college faculty and administrators to recognize the invisible needs of students on the autism spectrum (Accardo et al., 2019), universities have begun to create supports and make resources more readily available to create a positive the college experience. Students with disabilities including autism spectrum disorder have greater access to educational opportunities, and, therefore, significant strides in identifying and interventions have been implemented over the last decade (LeGary, 2017).

It is often difficult for administrators and campus providers to reach out to students with autism spectrum disorder for a number of reasons: typically-aged college students in general are not often seeking out services even when they are deemed necessary; students on the spectrum are often facing social integration issues and therefore are less likely to participate in any type of social intervention; and individuals with autism spectrum disorder who are in a post-secondary education setting often do not disclose their disability, whether purposefully or due to lack of knowledge on processes and procedures (Elias & White, 2018).

Although disclosure of a disability and thus being afforded accommodations has been found to improve academic outcomes, the literature suggests that non-disclosure is often preferred by students with disabilities unless there is a specific reason to disclose (Grimes et al., 2017). Research points to the frustration and possible negative outcomes in negotiating accommodations as well as the general negative connotation associated with disabilities as reasons for a student with a disability not disclosing to their college or university. In addition, students with autism spectrum disorder tend not to disclose due to social stigma associated with disability, fearing they will be seen as less intelligent, lazy, or not normal (Cohen, 1984; Grimes et al, 2017; May & Stone, 2010).

Through their research on college-based supports for students on the autism spectrum, Viezel et al. discovered some commonalities across their sample, such as programs tending to be transitional in nature and where only some offer support for the entire time the student is enrolled in the college. It was also found that most college support programs in this study expected students to be fairly independent in the

classroom and in the residence halls. While this is a good start, there is still work to do, as some of the key challenges for students with autism spectrum disorder are managing to live independently and address executive functioning and organization in the classroom. However, some programs that supported students for their entire college career did offer vocational supports such as resume development, mock interviews, and identifying state vocational rehabilitation offices (2020).

The concept of campus climate or community focuses on the experiences of college students as they engage in academic and social activities on campus (Leddy, 2019). Students with autism spectrum disorder may have unique experiences that affect their adjustment to college. Major factors in their successful transition are whether they feel the overall campus climate is supportive of them, as well as their experiences with disability support services on campus (Murray et al., 2014). Tinto notes that a student's sense of belonging—how they are engaged with and come to see themselves as a member of a community of other students, academics, and staff who value their membership—is essential for success to occur. He goes on to argue that success is perhaps most directly shaped by the broader campus climate (2017). To this end, recent research shows that students on the spectrum have reported a desire for both academic and non-academic support programs (Accardo et al., 2018). Thus, engaging students holistically on campus and providing a sense of belonging also requires faculty contributions.

Faculty Perceptions and Contributions to College Students Diagnosed with Autism Spectrum Disorder

Research on how faculty members perceive students with autism spectrum disorder and their attitudes toward accommodating students with such disabilities began being published more regularly in the 1980s. However, most studies focused on students with learning disabilities and not on other invisible disabilities such as autism spectrum disorder. In 1980, Walker stated that support services can make it possible for the student with a disability to enter the postsecondary setting physically but that only faculty members can provide access to knowledge and ways of knowing and learning. If the faculty are the only ones that can provide this access, how can they best serve students on the autism spectrum while also still often supporting the stigma that having autism spectrum disorder offers students a way out of requirements or ways of knowing? For example, other research by Janstram states that there will probably be no more difficult problem for faculty than the question of how far it is reasonable or appropriate to go in waiving specific requirements or modifying assignments in order to accommodate a particular student with a disability (1979).

In 1992, Houck, Asselin, Troutman, and Arrington conducted research that examined faculty perceptions regarding university students with invisible disabilities, sensitivity to such students' special needs, accommodations, and the perceived impact of such a disability. Results reveal a general sensitivity to the special needs of students, although perhaps not an appreciation or understanding of the disability. However, results also indicated that faculty in this study perceived that having [autism spectrum disorder]

could limit the selection of an academic major. As a result, faculty members may inadvertently or subconsciously communicate this assumption onto their students, thus moving these students towards or away from certain fields of study (Houck et al., 1992).

Additional research by Scott and Gregg points to faculty members' frustration with accommodations and the legitimacy of invisible disabilities such as autism spectrum disorder at their institutions of higher education. Anecdotal accounts in the research confirm that faculty members feel frustrated by the fact that they are required to arrange accommodations for these students. These feelings from faculty members do not validate the presence of invisible disabilities, and thus add to the stigma that these students are "working the system" by requiring that they be presented with, what faculty call, a diluted college education. The frustration for faculty members builds towards these students, who they feel are not capable of being in college in the first place (Scott & Gregg, 2000).

In 2008, Kristine Donato conducted a study that identified factors related to successful degree completion for students with disabilities coupled with the knowledge that faculty members have about accommodation issues. In addition, this study examined faculty members' perceptions of and attitudes toward students with disabilities. Faculty members interviewed discussed the barriers to accommodations as well as the need for empathy when working with this student population. In addition, faculty members reported that they felt students on the spectrum can feel isolated at the university, both in and out of the classroom.

The following years brought with it a different approach as colleges and universities not only sought to identify and acknowledge students with autism spectrum disorder, but to one that considered how faculty members interacted with and perceived this student population. In 2011, Hipola and Pastor conducted research on students with disabilities and their interaction with faculty members at the University of Madrid. It showed that the willingness and positive attitudes of university faculty is a factor correlated with the level of satisfaction of students with disabilities. Additionally, their study concluded that faculty members are one of the main social factors in a student's life. This social dimension, they state, is a key aspect in the social model of disability and is reflected both in the needs of the students, and in the attitudes and willingness of faculty members to improve or change those factors that contribute to more accessible and inclusive learning. Therefore, faculty who are involved with and sensitive to students with disabilities are essential in providing positive attitudes and a commitment to offering solutions to students with disabilities when needed (Hipola & Pastor, 2011).

Further research that same year by Rush discusses how students with autism spectrum disorder at more elite colleges and universities face additional pressure to perform, as well as to substantiate their disability diagnosis. Rush also states that faculty at these institutions may have apprehensions about the students' ability to perform as well as concerns regarding the academic integrity issues they may associate with the provision of accommodations to this population of students (2011). Rush's study aims to understand faculty members' attitudes towards students with autism spectrum disorder and how those attitudes translate into providing accommodations for students in their

classes. As was noted in Brockelman et al, Rush examines how faculty members' personal experience with disabilities may play a role in how they interact with and provide accommodations for this student population.

In their journal article regarding college student perceptions of social supports, LeGary notes that similar to living in a residence hall, the classroom also presents social stressors for students with autism spectrum disorder that can negatively impact their academic performance (2017). As mentioned earlier, classroom requirements such as group work and participating in reciprocal dialogue are particularly difficult for students on the spectrum and necessitates support beyond typical note taking or extended time on exams. Here, argues LeGary, is where faculty support, even if only perceived support, plays an important role in a student's success in the course. The author goes on to advocate for a long-term plan for faculty that includes best teaching practices when working with students on the spectrum in the classroom.

Some of the most recent research in 2019 was conducted by current and former faculty members and administrators from Landmark College, an institution of higher education exclusively for neurodivergent students. They noted that instructors need to recognize and value certain characteristics of students with executive functioning disorders, such as autism spectrum disorder, in the classroom (Shea et al., 2019). In their book *From Disability to Diversity*, they state that students with executive functioning difficulties often have the intellectual skills needed to be successful in the classroom, however, they lack the processing piece needed, which is what makes them unsuccessful in college (2019).

Students on the autism spectrum often show a developmental lag since the part of their brain that supports executive functioning is the last to mature. This means that these students perform at approximately two-thirds the maturity level of their chronological peers and thus may not be able to navigate the demands typically placed on college students both academically and socially. These traits are often and historically attributed by faculty members and others to a lack of motivation or poor parenting, when a consideration of brain function serves as a more positive starting point when working with students with autism spectrum disorder (Shea et al., 2019).

Other research on this topic touches on the importance of a faculty member's familiarity and comfort with autism spectrum disorder. A major foundational experience among faculty who had a positive perception of students with autism spectrum disorder is the development of prior personal connections to people with disabilities (Austin & Peña, 2016). Findings from an earlier study show that 85% of respondents indicated that personal experience was responsible for their attitudes toward students with invisible disabilities (Brockelman et al., 2006). These personal experiences were defined as the faculty member knowing a friend, student, or family member with a disability. Interestingly, in 15% of the cases, a faculty member noted that their personal experience was indeed personal—they had *individually* experienced a past or current disability.

Despite historically mixed perceptions of students with autism spectrum disorder by faculty members, more recent research shows that there are indeed faculty who responsively teach and contribute positively to students with autism spectrum disorder.

According to Austin and Peña, "a successful college experience may hinge on whether

faculty members are aware of [students with ASD's] needs, and further, if faculty members are truly invested in helping them" (2017, p. 17). They conclude their study by stating that "it is the direct relationship between the student with ASD and the instructor which will determine the academic success in a particular course, and therefore positively or negatively affect that student's chance for success in their pursuit of higher education" (2017, p. 24).

In their research, Gobbo and Shmulsky (2014) summarized pedagogical approaches of faculty members who had positive experiences teaching students on the autism spectrum. The faculty participants repeatedly noted that providing structure and reducing anxiety were key when teaching students with autism spectrum disorder. These teaching methods directly relate to and provide support for some of the characteristics and challenges of autism spectrum disorder, such as need for routine, structure, and ways to reduce stress while in the classroom. Clear expectations on assignments and routines in class structure all help students with autism spectrum disorder navigate a space that requires neurotypical executive functioning. Similarly, allowing for breaks when needed and minimizing or anticipating anxiety-provoking situations can positively contribute to a student's overall well-being and combat negative sensory issues.

Discussion and Implications

According to Hout (2012) being college educated is not only good in its own right, but it also promotes good outcomes for individuals, their communities, and the nation (p. 380). Recent key legislation, along with growing enrollments of students with disabilities in postsecondary education, have generated considerable interest on

accessibility of higher education for students with disabilities (Raue & Lewis, 2011). Meaningful postsecondary education experiences in colleges and universities correlate highly with the likelihood that people with disabilities will be successful in the workplace as well as in the community (Getzel & Wehman, 2005, p. 6).

Overall, research suggests that a postsecondary degree (for anyone) can be associated with increased earnings, improved job satisfaction, and improved health. More specifically, students on the spectrum benefit from postsecondary education by also gaining improved self-esteem and increased community involvement (Shmulsky et al., 2019). Therefore, the failure to address the barriers to higher education and within the classroom for students with autism spectrum disorder can lead to dropping out of college and/or un- or under-employment, (Schindler & Kientz, 2013).

While there has been an increase in research focused on identifying and addressing the specific needs of this population, most is concentrated on student and parent experiences (Zeedyk et al., 2019). A lack of substantial research focused on faculty perceptions of college students on the spectrum can cause a disruption to the successful entrance and continuation of postsecondary education for such students. For instance, critical reviews of the evidence base for interventions for social supports and other needs of higher functioning individuals on the autism spectrum show a lack of awareness [by faculty] of the scope of difficulties experienced by individuals with autism spectrum disorder (Hewitt, 2011). In 2014, Gobbo stated:

Continued research and ongoing education about learning differences like ASD will aid many, from those directly affected to those making remote but influential

policy decisions. Students, faculty, families, advisors, disability officers, and other professionals in higher education must understand the scope of challenges as well as strategies for success as they make important and increasingly expensive decisions about higher education (p. 21).

In their 2016 study, Haber, et al. noted a lack of specificity of disability in the current body of research. Categorizing disabilities into broad subgroups such as mild, moderate, and severe disabilities, they stated, is limiting. Therefore, they suggest designating more specific, meaningful subgroups within these broad categories (such as students with autism spectrum disorder) for further research. As recently as 2021, researchers have stated that there is still a need for further exploration in this area. Davis, Watts, and López found that the development of academic supports are less prevalent than non-academic aids. Their 2021 study on students with autism spectrum disorder concluded that institutions of higher education need to continue to focus on the development of academic supports as well provide professional development to faculty and staff to address students on the autism spectrum in the classroom. As has been presented, there is a need to continue to explore how faculty members contribute to and challenge the success of students with autism spectrum disorder in postsecondary institutions.

Chapter III: Methodology and Procedures

As more students with invisible disabilities have been successful through special education programs during their K-12 instruction (Chan, 2016; Gotlib et al., 2019) an increasing number of students are enrolling in universities. As a result, it is expected that administrators and faculty members address the academic and social needs of these students, specifically students with autism spectrum disorder. Therefore, it is imperative to illuminate faculty members' perceptions and challenges associated with students with autism spectrum disorder. To this end, this chapter presents the methodology used to conduct the study. It outlines the research method and design (Appendix B), description of the sample, data collection protocols, data collection processes, and data analysis methods.

Th purpose of this study was to examine faculty perceptions about how they acknowledge or identify, embrace, and respond to the different and unique learning styles these students bring to campus, and, more importantly, how they create classroom environments that promote these students' success. These research questions will guide the study:

- 1. How do faculty members describe their experiences with students with autism spectrum disorder at a large, public, four-year university?
- 2. What are the perceptions of faculty members about students with autism spectrum disorder at a large, public, four-year university?

3. How do faculty members address the challenges they encounter when working with students with autism spectrum disorder at a large, public, four-year university?

Research Method and Design

Phenomenology is a form of qualitative research that focuses on the study of an individual's lived experiences within the world to understand the human experience (Neubauer, et al., 2019; Wilson, 2015). According to Bliss, phenomenological research is the investigation of what experiences mean to people. "At its core," Bliss writes, "it concerns the investigation of everyday human experiences in order to learn people's common sense understanding and the meaning they make of their experiences and the experiences of others" (2016, p. 14).

When choosing a phenomenological approach, the researcher can examine the qualities of an experience through interviews, written stories, or observations with people who are having the experience (Connelly, 2010). True to the phenomenological approach, the sample size for this study will be small and purposeful. Although the phenomenon will be studied in fewer participants, the depth of the qualitative research can go far beyond what surveys can provide (Connelly, 2010).

Framing this research within a social constructivist paradigm is imperative, as disability itself is a socially constructed concept where society at large has categorized people using the concept of "normalcy" as the standard, leaving those without a 'normal' mind or body as impaired. "Disabled' is thus an identity label, a social construct used to

define and describe those who do not meet the criterial of body and mind that are used to construct a 'normal' human being" (Ndlovu, 2021, p. 65).

A constructivist grounded theory was the foundation of this research, as it analyzes the data in the context of real life. Charmaz defined constructivist ground theory as

distinguish[ing] between the real and the true. The constructivist approach does not seek truth – single, universal, and lasting. Still, it remains realist because it addresses human realities and assumes the existence of real worlds...the constructivist approach assumes what we take as real, as objective knowledge and truth, is based upon our perspective... thus the grounded theorist constructs an image of reality, not the reality – that is, objective, true, and external. (2003, 272-273).

Grounded theory is a way of arriving at a theory suited to its supposed uses (Glaser & Strauss, 2017) and compliments the inductive coding approach used in analyzing the survey and interview data.

This research employed a qualitative approach as it is most appropriate when the research relies heavily on human perceptions and understanding (Stake, 2010) and is used in collecting data, evaluating the data, analyzing data to produce findings, and presenting the findings (Yin, 2010). Yin explains that there is no singular definition of qualitative research and elaborates on the five features that make it unique:

- 1. Studying the meaning of people's lives, under real-world conditions.
- 2. Representing the views and perspectives of the people in a study.

- 3. Covering the contextual conditions within which people live.
- 4. Contributing insights into existing or emerging concepts that may help to explain human social behavior.
- 5. Striving to use multiple sources of evidence rather than relying on a single source alone (2010, p. 8).

Additionally, Stake summarizes that qualitative research is: "Interpretive, as it focuses on the meanings of human affairs as seen from different views; Experimental, as it is in tune with the view that reality is a human construction; Situational, as it makes the point that each place and time is unique; and Personalistic, as it is empathetic, focused on understanding individual perceptions" (p. 15).

A collective, intrinsic case study was used to identify faculty members' perceptions of students with autism spectrum disorder. Cousin states that "case study research aims to explore and depict a setting with a view to advancing understanding" (2005, p.421). They go on to state that in intrinsic case study research, the interest is understanding the case at hand, at this time and place, and in these circumstances (p. 422). Further, as Stake states, in employing a collective case, "a researcher may jointly study a number of cases in order to investigate a phenomenon, population, or general condition" (2003, p. 138).

Description of the Sample

This study made use of purposive sampling, which is the deliberate choice of participants based on the qualities they possess (Etikan, et al., 2016). According to Kelly, purposive sampling is "used to select respondents that are most likely to yield appropriate

and useful information" (2010, p. 317). When considering that the objective of this study is to explore faculty members' perceptions of students with autism spectrum disorder, it is imperative that there is a focus on specific kinds of people (faculty members) who may hold important and/or differing views about the ideas or issues in question (students with autism spectrum disorder in the classroom) (Campbell, et al., 2020).

Specifically, homogeneous sampling was used to assemble the group of participants, which included instructors who teach representative first-year, introductory courses at a large, public, four-year institution of higher education. A homogenous sample is best suited when, as in this study, the question that is being addressed is specific to the characteristics of the particular group of interest (Rai & Thapa, 2015).

Invited participants were a sampling of faculty members who teach standard first-year and/or introductory courses at The University. This study contained seven participants whose titles range from Assistant Instructor of Practice (non-tenure track) to Full Professor (tenured) and included a representation of disciplines and experience. This study also includes a conversation with leadership in The University's Disability Services Office to address key themes that arose during faculty interviews.

The setting for this study was a large, public, four-year institution of higher education located in the Southern United States (known as "The University").

Participants were selected from information available in the University Course Schedule, such as name and level of course taught, school or college providing the course, and faculty member name and departmental information. Using this information, a wide range of faculty members were selected based on the course(s) they teach. Specifically,

this research aimed to focus on faculty members who teach entry-level or first-year courses, thus faculty members who teach first-year seminars, introduction to a major courses, and survey courses were among those identified for participation.

Data Collection Protocols (Instruments)

This study employed the modification of several existing surveys to create the instrument used to gather data regarding faculty members' perceptions of students with autism spectrum disorder. Houck, Asselin, Troutman, and Arrington were early leaders in the research on faculty perceptions of students with disabilities. Each instrument in the Houck, et al. study contained 15 structured Likert-type items as well as open-ended items included to elicit additional or specific information. Prior to the use of the survey, the instrument was reviewed by a small group of individuals to determine item clarity and tone. Pilot calls were made to individuals who were not members of the samples to determine ease of interview and time needed to complete the interview (Houck, et al.1992).

Building on the work of Houck et al., in 2008, Baker, Boland, and Nowik developed an online survey instrument to measure faculty perceptions of students with disabilities. This survey first contained questions on overall campus climate at the college for students with disabilities, and then focused on their beliefs about students with disabilities. The last section of the survey focused on inclusion in the classroom. To evaluate the content validity of the survey instrument, they requested the director of the disabilities support program at the university as well as a non-participating faculty member to review it. The instrument was then refined to provide restructuring of

questions, removal of redundant items, and including additional areas of importance (Baker, et al, 2008).

While there are several instruments that measure faculty perceptions of students with learning disabilities, as described above, there is a lack of survey instruments that have been used specifically for faculty perceptions of students with autism spectrum disorder at the college level. Glennon's 2016 survey of college personnel regarding preparedness to serve students with autism spectrum disorder does touch on elements specific to autism spectrum disorder, such as transitional situations, social activities, and sensory needs. However, the 315 participants in this study were members of the Association of Higher Education and Disability, a professional organization for those involved in the delivery of quality services to meet the needs of people with disabilities in higher education. Furthermore, 94% of the participant population were involved in designing needed supports for students with autism spectrum disorder and 97% reported having students who had disclosed an autism spectrum disorder diagnosis.

In 2017, Elias, Muskett, and White developed a survey that traversed a broad group of educators—administrators, instructors, and academic support staff—from both high school and college settings. While this survey presented solid evidence for additional support for students with autism spectrum disorder in the transition from high school to college, the targeted sample was comprised of what appear to be those with experience or knowledge of students on the autism spectrum. Participants in this study were recruited by mail, flyers, and, perhaps most purposefully, via direct contacts with special education and disability support offices in school districts and post-secondary

institutions. It is clear that additional research needs to be conducted with those not necessarily knowledgeable with autism spectrum disorder, but those who play a critical role in the college student experience. "Although educators may not feel competent in their knowledge or ability to deliver accommodations, they are often in the best position to help students access and implement services" (Elias, et al., 2017, p. 260).

Appendix D displays the survey instrument that was constructed in Qualtrics and sent to selected faculty members. It contained required questions including courses taught at The University, years teaching at The University, school or college affiliation at The University, experience teaching students with autism spectrum disorder, and knowledge of autism spectrum disorder. The survey was reviewed by faculty on the treatise committee and pilot tested with select faculty members who work closely with the researcher.

In addition to an online survey of interest instrument, interviews were conducted with a subset of participants who agreed to an interview on their survey responses. Each interview with participants was conducted by the researcher in a confidential setting (via Zoom). An interview guide was created (Appendix F) and was used to ensure consistency across interviews, and interviews were recorded for transcription purposes with the participant's permission. Interviews were then coded using Dedoose software to identify themes regarding perceptions, personal experiences, and experiences related to students with autism spectrum disorder.

Data Collection Procedures

Approval for human subjects research from the Institutional Review Board (IRB) was the first phase in data collection (Appendix H). The informed consent process was described in the research protocol as well as in the call for participants. Research for this project followed all IRB guidelines and uses all templates provided by the IRB, including an explanation of the purpose of the proposed research, the duration of the subject's participation, a statement explaining confidentiality, statements regarding voluntary participation, and so on.

After a list of possible participants was generated, an email outlining the purpose of the study and invitation to participate was sent (Appendix C). Those faculty members wishing to participate were directed to the Qualtrics survey that was developed for this study. After a faculty member completed the survey, they were asked if they would like to participate in a short interview with the researcher. To do this, they were required to share their contact information with the researcher so that the interview could be scheduled. No incentives were provided to those who chose to participate.

Emails requesting participation were sent to faculty members in early October 2022 (Appendix E). Qualtrics surveys were deployed instantly to any faculty member that clicked on a link indicating that they would like to participate in the study. Data collection from the Qualtrics survey was ongoing and stored in Qualtrics until the participation window ended in early November 2022. After survey data had been collected, faculty members indicating a desire to participate in an interview were

contacted and interviews began being conducted between November 2022 and January 2023.

Data Analysis Procedures

As described earlier, this research followed a social constructivist framework in its design and analysis of the data.

Social constructionism and qualitative research is a natural marriage, wedded by a mutual respect for the complexities of the human experience and the idea that any one facet of someone's life (and the researcher's role in exploring this life) intertwines with (contributes to) some other facet. That, as human beings we can't be anything other than intricately involved together in the construction of our worlds" (Roller, 2016, p. 1).

Through a social constructivist framework, data can be analyzed neutrally and is not dependent on fact or truth. Rather, using this framework allows the researcher to delve deeper into the attitudes and perceptions faculty members may have of students with autism spectrum disorder. In turn, that information can be used to provide specific recommendations for faculty members teaching introductory and/or first-year courses at large, state institutions of higher education.

Coding is a key element in structuring qualitative research and allows the data to drive the analysis of the study (Williams & Moser, 2019). An informal codebook was developed prior to (and during) data collection and used when evaluating both survey and interview data (Appendix G). Open coding occurred during the process of analyzing the

data. The use of an open coding strategy enabled themes to be identified, codified, and interpreted, allowing a theory to evolve from the data (Williams & Moser, 2019).

To ensure quality of the research, several measures were employed. In 1985, Lincoln and Guba initially presented four criteria in developing trustworthiness in qualitative research—credibility, dependability, confirmability, and transferability, and later added a fifth criterion of authenticity (Cope, 2014). Several of these criteria, as well as others such as triangulation, were addressed to establish a quality research study.

Credibility will be achieved by ensuring that the participants' views, as well as the researcher's interpretation of them, is a true representation of the participants' involvement and engagement. To meet a quality measure of transferability, this research must have meaning to those not involved in this study and provide sufficient information to allow others to determine if the data is transferrable and applicable to them (Cope, 2014).

The concept of triangulation means that the research question is constituted from at least two points (Flick, 2007). In this study, interviews and surveys were two different data sources that helped promote quality through triangulation. Glaser and Strauss (2017) suggest the use of different types of data to give the analyst different views in which to understand a category and to develop its properties. In addition, triangulation should permit a surplus of knowledge at different levels (Flick, 2007), thus the inclusion of a professional staff member of the Disability Studies Office at The University.

This chapter outlined the research method used to answer the research questions.

A discussion of participants, procedure, data collection, and survey and interview

questions outlined the specifics of how the study will be conducted. This phenomenological study using a social constructivist framework was used to develop theory on how faculty members perceive students with autism spectrum disorder in a four-year, public university. The goal of Chapter 4 is to demonstrate the methodology outlined here, as well as provide the results of the study.

Positionality of the Researcher

As a higher education professional working predominantly with faculty members and first-year students, I am in the unique position of bearing witness to the lived experiences of these groups, particularly during their first-year seminar courses. Although I do not directly instruct their pedagogy, I am able to offer ways of thinking about today's entering college students, ways of teaching these students, and resources to assist faculty in their teaching. Through this partnership, I am able to offer my expertise on first-year student engagement in a way that is not authoritarian or challenging to their research or scholarship in their field. This collaboration with faculty members has allowed trust, and at times, vulnerability between us. I recognize that my connections and comradery with some of the faculty members being surveyed may influence their level of participation.

As a mother of a son on the autism spectrum, I also recognize that my own past experiences, frustrations, and successes may influence my interpretation and passion around this topic. Ultimately, my goal in this research is to amplify faculty voices around inclusivity, disability, and pedagogy in order to ease challenges presented to both faculty members and students with autism spectrum disorder. My hope is that I may use my

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leadership position at a large, public, four-year university to create change in both theory and practice for students, like my son, who may eventually pursue a college degree.

Chapter IV: Findings

This chapter describes the themes from the phenomenological study, which sought to understand how faculty members experience and support students with autism spectrum disorder. The purpose of the study was to examine faculty perceptions about how they acknowledge or identify, embrace, and respond to the different and unique learning styles students with autism spectrum disorder bring to campus, and, more importantly, how they create classroom environments that promote these students' success (Chan, 2106; Gotlib et al., 2019). This study was designed to answer the following research questions as presented in the table along with a summary of the themes.

Research Question Addressed	Themes
RQ 1: How do faculty members describe their experiences with students with autism spectrum disorder at a large, public, four-year university?	Theme one: Personal experiences with invisible disabilities and/or autism spectrum disorder influence the teaching of students with autism spectrum disorder Theme two: Little to no professional training on teaching neurodivergent and/or
RQ 2: What are the perceptions of faculty members about students with autism spectrum disorder at a large, public, four-year university?	students with autism spectrum disorder Theme three: Autism spectrum disorder is simply one of the traits that make up the student
	Theme four: Personal encounters shape faculty members' perceptions of students in their courses
RQ 3: How do faculty members address the challenges they encounter when working with students with autism spectrum disorder at a large, public, four-year university?	Theme five: Use of different pedagogies such as Universal Design for Learning and empathy in order to combat generalizations in accommodation letter
	Theme six: Faculty members create individualized methods for working with students regardless of accommodation letter
	Theme seven: Faculty members are forced to understand and attend to complex student behaviors without having a basic framework with which to address these behaviors in the classroom

Table 4.1. An outline of themes from the interviews.

Faculty members in the study described their experiences, perceptions, and challenges in working with students with autism spectrum disorder. They described how they worked collaboratively with these students as well as roadblocks they faced when attempting to find solutions to challenges. Through their words, the findings or themes

are presented as they align with the research questions. The final section of this chapter provides a summary that highlights these faculty members' lived experiences with regard to the research questions.

Description of Participants

This section describes each participant in the study. Through brief vignettes, I highlight the various ways in which faculty members came to know about autism spectrum disorder, including their perceptions, knowledge, and experiences with this population. Their lived experiences, both professional and personal, provided context for the themes in the study. An outline of the participants from the study, including information requested in the initial survey, is presented in the table below.

Data collected on participating faculty members is deidentified in the study by the use of pseudonyms. Their specific academic departments and schools were not identified, except for general area of scholarship and teaching. All of the information provided by participants in the surveys and interviews remained confidential.

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Participant	Rank	Area of Scholarship	Years Teaching in Higher Education	Years Teaching at Current Institution	How Familiar are you with the Traits and Characteristics of People on the Autism Spectrum	How Knowledgeable are you Regarding Challenges of People on the Autism Spectrum	Have you, to your Knowledge, Worked with Students on the Autism Spectrum at this Institution
Dillan	Professor (Tenure Track)	Engineering	10+	10+	Moderately Familiar	Moderately Knowledgeable	Maybe
Joan	Assistant Professor of Instruction (Non-Tenure Track)	Natural Sciences	10+	3-7	Very Familiar	Moderately Knowledgeable	Yes
Kristen	Assistant Professor of Instruction (Non-Tenure Track)	Liberal Arts/ Humanities/ Social Sciences	10+	10+	Very Familiar	Very Knowledgeable	Yes
Lawrence	Associate Professor (Tenure Track)	Fine Arts	10+	10+	Moderately Familiar	Moderately Knowledgeable	Yes
Lydia	Professor (Tenure Track)	Medical School	3-7	3-7	Moderately Familiar	Moderately Knowledgeable	Maybe
Renee	Professor (Tenure Track)	Communication	10+	10+	Slightly Familiar	Not Knowledgeable at All	Maybe
Susan	Professor (Tenure Track)	Liberal Arts/ Humanities/ Social Sciences	10+	10+	Moderately Familiar	Moderately Knowledgeable	Yes

^{*}In addition, a long-time administrator from the Disability Services Office (Molly) was interviewed to offer insight and opinion regarding faculty comments collected during interviews.

Table 4.2. Participant profiles

Dillan

Dillan is a tenured Professor in the science, technology, engineering and mathematics (STEM) field, who has spent decades teaching in a higher education setting. They state that over that time span, they have had "zero formal training" with regard to students with disabilities and/or autism spectrum disorder. However, they state that through their spouse, who is a trained professional in counseling, they received lots of informal training and general information about autism spectrum disorder. In addition, through family friends and others, they have collected life experiences with people with disabilities.

Having worked with generations of students, both neurotypical and neurodivergent, they have experienced a change in how the university responds to such students. For example, Dillan states "it has definitely been a change, at least in the makeup of this...if I have to go back, [STEM] was taught very much as a sink or swim kind of major...and if there was something different about you, special needs...you would just sink." They go on to say that "although I teach classes primarily at the junior or senior level, the prerequisites courses, such as physics and so forth were called 'weed out' courses, and special needs tended to get weeded out way back then."

Joan

Joan is an Assistant Professor of Instruction who teaches courses in the natural sciences. Although Joan stated that they have no formal training in students with disabilities, they come from a family of psychologists. As such, they participated in various departmental activities, such as an annual Easter egg hunt for children with autism spectrum disorder. In describing this experience, Joan mentioned that "I think probably there was research going on that I didn't even know about...maybe I was one of the [neurotypical] kids being observed."

These experiences growing up and interacting with people on the autism spectrum set Joan up "for the rest of [their] life to be really attuned to people who are on the autism spectrum." They go on to say that although "it's less of a formal education or training...it's all kind of been really present in my life and I think there are aspects to [me being] a really empathetic person, so there are certain areas where people who have autism spectrum disorder and I really overlap."

As an instructor of a large entry-level course with several co-instructors, Joan finds it difficult to practice empathetic teaching and flexibility due to course and content requisites. They do their best to teach in the Universal Design for Learning framework but understands that at any point the institutional constraints, such as shared assignments and calibration of graded work, could prevent that method of teaching.

Kristen

Similar to other participants' experiences, Kristen, an Assistant Professor of Instruction in the social sciences, had their first exposure to people with disabilities through personal interactions with family members and friends. They state that there was no formal training required of them but has had "many conversations back in the old days when you could get [The Disability Services Office] on the phone, and many situations over the years where I've reached out [to them] for individual circumstances." Through these personal networks, Kristen has developed skills such as empathy and flexibility, and has incorporated inclusive teaching practices like Universal Design for Learning in their courses.

When asked about opportunities or outlets that would better assist them in working with students with disabilities, Kristen mentioned that they would want "the opportunity to talk with other like-minded faculty who have worked with different students, different issues, different situations...and see what they came up with...I think a lot of faculty actually don't want that." Kristen elaborated that it can be difficult to "sell people on [something they are required to do but don't want to], for example, how do you make people want to have empathy?"

Lawrence

During their interview, Lawrence, a tenured Professor in the area of fine arts, shared that they were required to enroll in a pedagogy course in graduate school almost twenty years ago. During that course, they read books on emotional intelligence, examined how to teach different learning styles, and discussed divergence and neurodiversity. When asked if they received any recent training or guidance, Lawrence responded, "I can't think of a moment at [The University] where there's been a teacher training or what to do once you get paperwork from the disability office." Lawrence's personal connection to disability occurred recently, when their child who had been diagnosed with Attention Deficit and Hyperactivity Disorder and anxiety disorder was scheduled to be tested for autism spectrum disorder in the next few weeks. Lawrence said that because of their daughter's potential diagnosis, they have been reading more about parenting a child on the autism spectrum and gaining information in-time and as-needed.

When discussing how higher education has changed over the last few decades, Lawrence reported that "one of the significant impacts of the Americans with Disabilities Act is that you could see a trend of more neurodivergent students making it through to grad school I think, because they've…been able to be successful in K-12, then they can be successful through undergraduate, and then…you can see them start to come into grad school." Lawrence went on to say that due to the lack of training, many instructors had to think of what the student might need to be successful, which, they add, "in so many ways is not unlike a neurotypical student…we still have to think about 'how do we serve this

student? What does this student need? Why is this not working?' So, in some ways, the experience sort of feels similar to other experiences, it's just on a new vector."

Additionally, Lawrence mentioned that the framework for managing student accommodations and learning what they need to be successful in the classroom can also be applied to the faculty members leading a course. They stated, "I don't give my students my accommodation letter that says [my disabilities], so the students don't know that they might be triggering different neurodivergences inside of *me*. It's interesting to think about....how do they accommodate professors?" Lawrence ties this into how to teach students to humanize their professors and treat others with respect.

Lydia

Beginning their career as a physical therapist working with children with disabilities, Lydia is a Professor in the medical field. Their training to become a physical therapist included little with regard children on the autism spectrum, and they state that "What I did learn, I did because I was really interested in taking care of children...then I just started to think about it from the perspective of a scientist and read more about it because I think traumatic brain injuries at an early age [Lydia's area of research] can present long term clinical manifestations similar to autism." In addition to their professional work, Lydia also has personal connections to people on the autism spectrum, including close family members.

Lydia described the various classroom cultures over their years of teaching at [The University]. During one particular semester, they experienced a neurotypical student accepting and embracing a student with disabilities while other classmates bullied and

discounted their neurodivergent peer. Lydia recalls that "[The students] were in teams, and his team of three segregated him...where they would sit a chair away from him, as if, you know, you could catch it." During another meeting at an art museum later that semester, Lydia recalls that the art educator asked the students to break up into groups of three. "It was like kickball and [he was] the last one that nobody picked. He was the last one standing, and there was this former football player, big guy, who saw what was happening, and at the last minute walked over to him and said, 'can I join you?'" She correlated those experiences to other real-life situations, where some practice empathy and support and others do not.

Renee

Renee is a tenured Professor in the communication field as well as a former journalist who describes their knowledge of autism spectrum disorder as extremely low. Their experiences with immediate family members who have been diagnosed with Attention Deficit and Hyperactivity Disorder, however, give them a framework for understanding and identifying differences in and out of the classroom.

In addition, Renee described how a students' trauma and Post Traumatic Stress

Disorder can manifest itself in similar ways to invisible disabilities in the classroom. For example, they mentioned having students work in groups on a project regarding a public service announcement. One group chose Sandy Hook Promise, unaware that a fellow classmate had recently survived a school shooting. Renee highlighted the benefit of knowing more about the students in their class, even beyond their disability status.

Renee believes that having more information about each student can assist faculty members in better serving the students in their class. Even if the student is not identified, Renee stated that having a list of disabilities and/or traumas in the classroom can help faculty provide more in-time guidance and class structure. "If I knew I had a student in my class who had X, Y, or Z, I know I would be inclined to be more patient, more considerate, you know, more empathetic....even if I didn't specifically know which student(s) had X, Y, or Z." Similarly, Renee stated that they have adopted a new practice of providing students the opportunity to privately share anything that might be helpful for their instructor to know at the beginning of the semester.

Susan

Susan is a tenured Professor in the social sciences. Similar to other participants, personal connections with family members rather than formal academic training is how they first became aware of autism spectrum disorder. Their personal experiences help them consider their students more holistically, as "people with complicated histories." In addition to neurodiversity, Susan discusses other distinctions they have seen increase over the years, such as race, ethnicity, and immigrant status. "We're educating students of [our state]. So we should feel good about that....and think about reflecting on those experiences and thinking about representation."

Furthermore, Susan suggests that faculty be provided more focused information, in the aggregate, about the students they are teaching in the classroom. They stated, "These are our students. This is what they look like, and these are some things to think about as you construct your syllabus." For example, they mentioned their knowledge of

an increase in socio-emotional distress, anxiety, and depression in recent years, and how having access to information about emerging invisible disabilities may be helpful for faculty members.

In summary, the seven participants in the study are all current faculty members at a large, public university. All participants had at least some personal and/or professional experience with individuals on the autism spectrum, and all have worked, or believe they have worked, with student accommodation letters from The University's Disability Services Office. Most faculty participants currently teach or have taught an interdisciplinary first-year seminar course that is required of all first-year students as part of The University's core curriculum. The remainder of faculty members interviewed who did not teach an interdisciplinary first-year seminar all had experience teaching entry-level courses that are typically taken in the first year of college. Thus, the bulk of the student population in those courses is made up of lower-division students in their first year on campus.

Themes

The themes of the study are organized by research question in this section of the chapter. The first question explores faculty members' lived experiences with people on the autism spectrum. The second research question asks faculty members to consider their perceptions of this student population. Finally, the third research question is focused on understanding the challenges faculty members encounter when working with students on the spectrum. Interviews with participants were coded based on the

frequency of common themes, such as personal experience, empathy, accommodations, and challenge, which give voice to current and future research in this area.

Research Question 1: How do Faculty Members Describe their Experiences with Students with Autism Spectrum Disorder at a Large, Public, Four-Year University?

RQ1 focused on how faculty members described their experiences with students with autism spectrum disorder at a large, public, four-year university. Faculty described their experiences on both the personal and professional level. Through my analysis, I identified several themes, including prior personal relationships as they relate to experiences with people on the autism spectrum, and lack of any formal or professional training in working with students on the spectrum.

Personal Knowledge and Experiences

As was stated earlier, all of the faculty members interviewed had some personal experience with disabilities. These personal experiences were defined as the faculty member knowing a friend or family member with a disability. The study found that these personal experiences often impact how a faculty member responds to and interacts with a student with disabilities in the classroom.

As stated in Chapter 2, a major foundational experience among faculty who had a positive perception of students with autism spectrum disorder is the development of prior personal connections of people with disabilities (Austin & Pena, 2016). When asked about their personal experiences with people on the spectrum, Kristen said:

I think my first exposure to was through a family member. So my nephew is on the spectrum, and to be honest, his parents did not intervene as early as I wish they had... one of my closest friends, both of her boys are on the spectrum, and she took a very different approach. And...she did all the interventions from age 3...it was interesting for me to see that, her kids, you know...it's a spectrum...So they're like different places on the spectrum...And then my nephew is kind of...not as high functioning. I mean, he's taking college classes now, but you know, socially he's not as high functioning. So I think I definitely came to most of my knowledge through those personal connections.

Similarly, Dillan and Lawrence based what they knew of autism spectrum disorder on more recent, personal experiences. "It has only been in recent decades," Dillan said, "that I have even become aware of autism and what it is...but, I've been around, for example, in my church, young people who are at various places on the autism spectrum, from severe to mild." Lawrence came to be invested in knowing more about autism spectrum disorder due to current events within his immediate family. They discussed how they became aware about autism spectrum disorder: "So, that's sort of capsulating...I think that in my own life, probably because of my children and my wife, I think my knowledge [comes from needing to know as] my daughter, in a matter of three days, is going to get tested for autism spectrum disorder. She has been tested for Attention Deficit and Hyperactivity Disorder and anxiety, and all these, you know, come with lots of therapy and treatment."

Faculty Members' Personal Knowledge and Experience and Student Success

A faculty member's personal experience plays a key role in how they approach teaching, specifically, with students on the autism spectrum. Prior research was focused

on understanding faculty members' attitudes towards students with autism spectrum disorder and how those personal experiences with disability may impact student success in the classroom (Rush, 2011). Similar to living in a residence hall, the classroom structure can present social stressors for students with autism spectrum disorder, thus negatively impacting their academic success.

Therefore, faculty members who have some personal experience with disability, and more specifically with autism spectrum disorder, may be better able or more willing to define success in the classroom for this student population. In their 2017 study, Austin and Peña found that the relationship between the student and instructor determines the academic success in the classroom. In addition, they concluded that this relationship would "positively or negatively affect that student's chance for success in their pursuit of higher education" (p. 24).

"Back then," Dillan recalled, "our courses were called 'weed out' courses, and special needs tended to get weeded out way back when...but there was a very, very explicit change in attitude at [this university]...I think nationally we like to admit the best students we can, and that now includes diversity, and we do whatever we can to enable their success...this is now somewhat of a more prominent feature of students' experience I would say."

Dillan continued to elaborate on how a change in attitude and acceptance can add to student success in the classroom:

Well, with a focus on autism I would say that it would be useful for [the university] in an appropriate platform to make available resources to faculty

members on how most effectively to deal with these students. I don't know what the demographics of autistic students are in higher education, but I think they're in a pretty strong minority. But like I said earlier, we've got a family in church has an autistic daughter and is a college graduate. She lived on her own in an apartment, and with a lot of support, and so forth... but I very much appreciate the attitude that the [current university] administration has had in that we want to recruit the very best students we can, and do what we can to help them achieve their success...long gone are the days when you enter as a freshman and sit in this monstrous class and say 'look to your left, and look to your right, and only one is going to graduate.' Oh, horrible! How terrible is that? That person is going to go through life branded a failure. It's horrible to have to overcome. And for a long time that was designed into our educational systems.

This theme highlights that a faculty member's personal experience with people on the autism spectrum can play an important role in how they either promote or inhibit student success in their courses. As was shown through the interviews, all of the faculty members used their personal experiences with people on the spectrum to guide (sometimes unintentionally) their teaching and classroom environments. For participating faculty members, these personal experiences have, more than formal or professional training, served as their preparation for working with neurodivergent students.

Professional Knowledge and Experiences

Unlike all participants having some personal experience with autism spectrum disorder, only two, Lydia and Lawrence, described the very limited professional training they received on working with neurodivergent students. Lydia, who earned a doctorate degree in the neurosciences, described how they were trained as a teacher: "We had to TA two courses...one was in a gross anatomy lab, working with medical students, leaning over cadavers...the second one was a hemotology lab, and that was my training to be a teacher." When asked if they would have benefitted from professional training through [The University], they replied:

I've been in academia for a long time, but I haven't been an active teacher, and I've never taught undergraduates and let alone freshman. Right? So I would have been somebody who probably you know, would have benefited from that. I mean I certainly wouldn't have turned that down because I felt like starting from scratch trying to figure out how to do so.... I don't know that I have any thoughts about how to approach that, but I always think there's always room for improvement, and somebody's going to say something, and you'll go 'Wow! I never thought about that.'

Similar to Lydia, Lawrence describes how their only professional guidance on the topic happened several decades ago. Lawrence explained their experience by stating:

[Twenty years ago] when I was going to grad school I took a course in pedagogy and how to teach. I know we read a book on emotional intelligence. I know we had some conversations about what it is like to teach different learning styles, and in some ways, I want to say that might be the last moment of actual hands-on training about how you would teach multiple learning styles, let alone like divergency or neurodiversity.

Other participants were certain that they have not had any type of formal training in this area. When asked about formal training through [The University], college, or department, Susan succinctly answered that they "hadn't had any kind of training...nothing in a kind of academic way." During their interview, Renee discussed how faculty members often end up spending large amounts of time being tested and retested on required modules that provide no new or timely information regarding the student population. Instead, Renee says, faculty have to conduct their own research based on interactions with a specific students:

I feel like I spend so many hours taking the diversity and inclusion training over and over again, you know, and I understand that it's important, so I'm not going to say give us another training module. I mean, obviously, I think that if you want to do it voluntarily, that would be good. If there's anything you could do that would just be like a quick read for people. But I don't want to spend hours and hours on more training. However, when you have experienced something like the kid in [my course who survived] the mass shooting then you go looking for more information. You know, how do I handle this? If you had, I don't know, if you had little things where I am my own and when I need it, can go find more information. As can be seen above, personal experiences can provide powerful tools in how a

faculty member might interact and support a student with disabilities. Moreover, the lack of professional knowledge about this student population does not tangentially provide adequate support for students with autism spectrum disorder. The benefits of personal experience and professional supports with students on the spectrum will be discussed further in Chapter 5.

Faculty Members' Professional Knowledge and Experience and Student Success

Although there is a growing number of students with autism spectrum disorder attending institutions of higher education, the majority of the faculty members interviewed had little to no knowledge of what professional services were available to them and their students on their campus. Gobbo and Shmulsky raised this dilemma, stating that while a few colleges offer training in this area to faculty, the numbers are relatively small (2013). The juxtaposition between the expectation for faculty members to be aware of invisible disabilities and the lack of professional training provided to them is of concern to all participants in this study.

Joan was asked how faculty members would be most receptive to professional development training, where they would be provided information and guidance that might help them help their students who are on the autism spectrum. They stated:

One of the things I think is key is that there is still, even though we're trying to fight it in the underlying value in academia for a long time was...if you can't do it this one way, you don't belong here, get out—it's an entire hazing process...We call them 'weeder classes.' The value [in academia] is not every human has a right to education. And so, you know, we're kind of in a transition period, I think,

with that value, with that paradigm change...But you know...the fact that there's not training for neurodivergence, for example, but also the fact that it's not even really seen as necessary—if they can't hack it—get out...[Feedback on how faculty work with neurodivergent students] is not on our course instructor evaluation questions. There's never a way for students who identify as neurodiverse to then evaluate the faculty members. You know, so there's no accountability...Because [neurodivergent students] are going to be a minority. By definition, they're all going to be in the minority. And so if all you're just looking at is blanket course evaluation scores, you could have every single autistic person in your 150 person class rate you terribly and your CIS scores are still going to be fine. It's never going to come up for your promotion. It's never going to complete your review. There's no way to know.

When asked if they knew of services on campus other than the [Disability Services Office], Lawrence timidly answered, "This is probably super telling...I'm not even sure what you mean, like, besides the [Disability Services Office]. If you are asking what services I'm aware of...I don't think I started out knowing, but at some point I learned that students will come to you with these letters." Following up to that statement, Lawrence discussed how the lack of professional support and guidance actually made them more eager and diligent in finding ways to help students who approached him with accommodation letters:

Over time I developed a sense of, like, how am I going to do these letters that it's just not...you just need time and a half. Okay. Instead I was trying to really just

connect and be like, 'What do you need? What works for you? What doesn't? What strategy did you use in past negotiating?' If there is anything that feels a little bit like, I'm not sure that that's good for either, you know, and so trying to really engage and understand. I think that was mostly through practice and sort of 'dancing' with the students...because you come to figure out like I said yes to this [accommodation], and it turns out it's not good for us...It's hard to go back or hard to renegotiate. And then some services I know of, like the behavior concerns hotline...has almost nothing to do with neurodiversity. It has to do with creepy and scariness. And like, yeah...I've had a grad student who had an accommodation letter about depression, and disappeared for a while, and you know we did some [calls to the behavior concerns hotline] to trigger a sort of check and figure out if we could connect with this student.

The thoughts expressed by Lawrence were shared with other participants as well.

They not only centered around professional resources and education on the disability itself, but also on how to create an inclusive classroom environment that can help promote student success. Dillan shared their experiences in teaching students with disabilities in the past:

And so I think back, and recall we had all this math, partial differential equations, in the textbook...they can go up to multiple lines and be overwhelming, but they also have physical meaning. And I try and work really hard for the students to be able to grasp this. What is the reality behind this imposing looking equation that they can relate to in their daily living? And [one particular student] really worked

on that. She used to come by my office hours to visit and was slow to interact, she had a very difficult time making eye contact, which I would think is typical in an autistic person, particularly in dealing with an imposing person. So eventually I just figured out, 'I just need to let this fine young woman be who she is and try and do this together.' I'm not sure if that was a good way to treat her or not, like I said, 'who amongst my peers has had any training, or sensitivity [training], or empathy [training]?' Yeah, there tends to be an attitude amongst my faculty peers [to] be pretty hard on the students at times. You know, you need to 'get' this stuff. And if it doesn't go that way, then we can be—I tried personally, this is not my personality—too hard on the students that way. I know it occurs. I know it occurs.

As has been shown, the majority of participants in this study have little to no professional support or training in working with neurodivergent students as they began their teaching career. Through their professional experiences, several participants pointed to the need for a culture change around "weeding out" students and standardizing ways of knowing. All faculty members interviewed shared that there are a lack of professional development opportunities, specifically in the area of teaching students with disabilities, at The University.

Summary

In sum, my analysis of RQ1 suggests that we need more understanding of how faculty members' personal and professional experiences with people on the autism spectrum has impacted and influenced their teaching. Faculty members who have personal experiences with people on the autism spectrum (all participants in this study)

are more attuned to their students' needs and acknowledge the importance of embracing neurodiversity. In addition, my analysis of RQ1 suggests that more exploration into professional training of higher education instructors by [The University] is needed, specifically in-time support with a focus on practical solutions.

Research Question 2: What are the Perceptions of Faculty Members About Students with Autism Spectrum Disorder at a Large, Public, Four-Year University?

RQ2 focuses on the perceptions of faculty members about students with autism spectrum disorder at a large, public, four-year university. Through these interviews, I fostered a social constructivist understanding, where perceptions of students with disabilities are constructed based on a faculty members' interaction with this specific population. Through this social constructivist perspective, faculty members describe how they can only see the world from their place within it, and perceptions are based off of life experiences (Gallagher et al., 2014).

Many faculty members interviewed described their perceptions of students with autism spectrum disorder as simply part of a student's uniqueness. Faculty also often describe this student group as bright and academically gifted, yet developmentally and/or socially behind their peer group. Through my analysis, I identified two major themes, including how personal encounters shape faculty members' perceptions of students in their courses. Additionally, faculty members note that autism spectrum disorder is merely one of the traits that make up a student, and not the sole thing that defines an individual. Faculty participants' perceptions are described below, especially as they

relate to experiences with people on the autism spectrum, and the lack of any formal or professional training in working with students on the spectrum.

Faculty Members' Perceptions of Students with Autism Spectrum Disorder in Relation to Personal Settings

Across this study, it was found that all faculty members had personal experiences with or knowledge of people with invisible disabilities, such as autism spectrum disorder. Several participants, including Susan, describe their "non-academic read" of family members on the spectrum as a way to gain knowledge "without doing the literature review."

These personal encounters often shaped their perceptions of the students in their courses. As Hipola and Pastor concluded, "faculty who are involved with and sensitive to students with disabilities are essential in providing positive attitudes and a commitment to providing solutions to students with disabilities when needed" (2011). For example, Joan spoke at length about their personal experiences with people on the autism spectrum since they were a young child. They disclosed:

I had kind of an unusual [background]...I don't have the training or anything like that in in any sort of psychology, but I come from a family of psychologists. My mom is the other [Name Redacted]. She's in the Psychology department, and she had me [when she] was very young, and so I was with her when she was getting her bachelor's degree at [Name Redacted]. And in the Psych department at [Name Redacted], was probably my first sort of known exposure to people on the autism spectrum was when I was a kid, and I think it was the chair of the department, and

he and his wife specialized in autism and every year they would have on their huge property an Easter egg hunt for autistic kids. And it was like part of their service, and they would try to bring in some non-autistic kids to then, you know, integrate into that experience, and also sort of assist...I think probably there was research going on that I didn't even know about.

These personal experiences with individuals on the autism spectrum from a young age now play an integral role in how Joan perceives the students they currently teach:

And it's funny because I didn't even really realize but it actually kind of set me up for the rest of my life to be really attuned to people who are on the autism spectrum and be able to recognize, you know, even just peers in my classroom when they're in distress, or you know, be totally fine if they don't make eye contact, stuff like that...One of my friends will be like, 'I just got diagnosed on the autism spectrum and I'm like, 'Oh, yeah [of course]'...so you know, it's less of a formal education or training, but more just a...it's all kind of been really present in my life.

They go on to correlate their personal experiences with how they, now as an instructor, perceive students with invisible disabilities, in particular those with autism spectrum disorder, in an academic setting:

But so you know as an educator, there are times...I think to me one of the larger challenges of when we have students on the autism spectrum is honestly that they're unidentified. So it's up to me to be able to then spot them and you know, and read them, and that's something that I am particularly adept at. It is something

that I've worked at my whole life...to be able to read people and meet them kind of where they are, and to be able to identify that kind of stuff, especially in a classroom setting.

When thinking about how personal experiences can shape perceptions, Renee also reflected on past personal interactions:

I don't know about autism spectrum stuff [in an official capacity]. You know really what I know...I think my stepson may have a little bit of that. He had, you know, he didn't talk until he was three years old, and has dyslexia for reading and things like that. But I guess not everybody has all the stereotypical things. You know he doesn't have affect disorders, or he looks you in the eye when he talks to you...all those things. So, who knows...but he hasn't been diagnosed with that. But you know some of the things that happen with him, you kind of wonder if that's not it a little bit. But he's fine now, everybody's in their twenties...

During these interviews, faculty members describe how they have applied their perceptions about autism spectrum disorder to students in their classes. In the following sections, pedagogy around perceptions of disability and difference will be addressed both in terms of specific medical diagnosis as well as holistic instruction for all.

Faculty Members' Perceptions of Students with Autism Spectrum Disorder in Relation to Professional Settings

Faculty members were asked about how their perceptions of students on the autism spectrum translated to working with students in the classroom. During their

interview, Renee expressed their perception of students they believed had characteristics of autism spectrum disorder based on what they had encountered in the past:

Yeah so I had one student who wouldn't look you in the eye ever when she talked, and she had some...She would say some things that were a little bit like take you aback with how socially unacceptable those were. So that was probably my easiest one. I just don't know, you know, but I suspected with another student who just talked non-stop and...it was such a problem that she was literally dominating all the class discussion, and I had to take her aside and talk to her about it. It helped for a while, but then she kept...she would go back, and I told her, I said so let's do this—sit next to me and when I think you've said enough and I need to hear the other people, I'm just going to reach over and tap my hand on the desk next to you so nobody else will know...and that worked beautifully...I would just find her.

When describing their experience with students on the spectrum, Renee also related those encounters as parallel to those they have had with faculty colleagues who they perceive as being on the spectrum. When discussing perceptions and accommodations for students on the autism spectrum, Renee stated:

I mean we have professors [who] I'm positive are on spectrum, lots of them, you know, and they're like...one of them is my next door neighbor and he is socially awkward. And you know just does these weird things but he's so good. He's great and he's really good at teaching students how to do research, I mean he's our goto guy for whenever we have somebody...if we have a Ph.D. student...they

frequently they get stuck after comps on writing the dissertation. I'll be like, 'hey I'm not the best person to be your supervisor. Go see him.' He gets them through most of the time when the rest of us can't. He gets them through. So, you know, he's got, I mean everybody's got their own strengths and weaknesses, no different for people on the spectrum.

Other faculty members, such as Lydia, described knowing what autism disorder "looked like," and their perceptions of students on the spectrum were based off of that knowledge. When asked if they have worked with students in their classroom or lab that have disclosed that they were on the autism spectrum, Lydia stated "No, but I do think that in my last class, my [first-year course], there was a student that was on the spectrum, and so I thought it was actually pretty obvious, and obviously saw a difference, too…he was a very private young man, but you know his differences were recognized by the other students."

In order to gather further information, Lydia was asked supplementary questions about what stood out to them to identify this particular student as being on the autism spectrum. They recalled:

I think the biggest one was eye contact, you know, inability to do that, and then and I think it was hard for him to clearly communicate what he needed. So you know, and part of that is just his own privacy. But it was also the way he communicated with me orally, from a risk perspective. When he had a clear explanation of what he needed to do, he wrote and he was right up there with some of the other good writers, so he was good on that.

During their interview, Susan discussed what she felt were some of the typical characteristics of an invisible disability that they observed amongst students they teach. Susan stated: "So let me tell you about the one student that I had. So you know in my 100 person class they mostly don't self-disclose. If people do self-disclose it is young women disproportionately who have some kind of socio-emotional issue. That's if people are going to disclose. Those are the typical people." When asked to discuss any traits or mannerisms that might lead Susan to perceive students as being on the autism spectrum, they recalled a time they taught a seminar-style class roughly six years ago:

The first time, maybe I taught [an honors] class. It was 2016. This class on [intimacy and relationships]. It's a small class. There was maybe two or three young men in it, and there was one, and I don't think I got a letter from any of them. But there was one young man in particular who was, I mean, was very like, just was very rigid, it was very uncomfortable, and the thing about that class is that it was very full and intimate...it was like one of those kind of magical classes where there was a lot of informal connection. I mean, partly it was the talking about young people in romance, but this boy was very uncomfortable in that class, and it was clear that he was incredibly bright, but also incredibly uncomfortable with a kind of classroom I have created, which was one that was really warm. I thought I need to think about a way to bring him in. Eventually I just would try to kind of protect him and not make him feel like he couldn't just be in the space. You don't need to participate in this...Whereas, like my 100 person class, it's almost impossible to get to create that sort of intimacy or a space that might be

less comfortable for young people who have trouble reading people and feeling...I don't know. He never disclosed. It was my sense of him, and a way in which I wasn't the right person for him.

Overall, faculty members' perceptions of students with autism spectrum disorder influence how they approach instruction in their classrooms. Faculty members discussed what they feel are typical characteristics and behaviors of students on the spectrum, as well as how they had to disregard their perceptions in some cases. The next section will explore how personal experiences can shape perceptions in the teaching arena.

Summary

In sum, the study furthers the understanding of perceptions of students on the autism spectrum in both academic and non-academic settings. The study found that perceptions, along with prior experience and knowledge, play a critical role in a faculty members' approach to teaching students with autism spectrum disorder. From the themes, it is clear that there is not one way to perceive a person on the spectrum. This is shown in the interviews, particularly when faculty members make statements such as "not everybody has all the stereotypical traits." These thoughts, along with faculty statements that "everyone is neurodivergent," and that children can "grow out of it," highlight that perceptions can sometimes skew what is true. Perceptions, then, do impact and influence how faculty members approach pedagogy and interpersonal interactions with students on the autism spectrum.

Research Question 3: How do Faculty Members Address the Challenges they

Encounter when Working with Students with Autism Spectrum Disorder at a

Large, Public, Four-Year University?

The themes from RQ3 are presented to answer the question: How do faculty members address the challenges they encounter when working with students with autism spectrum disorder at a large, public, four-year university? Faculty described one of the most prominent challenges as the oversimplification and lack of specificity in accommodation letters provided by the [Disability Services Office]. Through analysis it was found that different pedagogies such as Universal Design for Learning and empathy were used in order to combat generalizations in accommodation letters. Faculty members also stated that they created individualized methods for working with students regardless of whether they produced an accommodation letter or not. In addition, it was found that faculty members feel forced to understand and attend to complex student traits without having a basic framework with which to address these behaviors in the classroom.

Accommodations

All of the faculty members interviewed discussed the challenges that are associated with an overgeneralization in accommodation letters provided by [The University's Disability Services Office]. Although participants expressed wanting to be able to better support students with autism spectrum disorder, much of the information they are provided is concentrated on accommodations and compliance, rather than with extrinsic factors such as campus climate and faculty attitudes (Leddy, 2019).

When asked about accommodations for students, Lawrence expressed that perhaps everyone in the class, even the instructor, may be on a neurodivergent spectrum and require accommodations. They state:

I mean I don't know what this has to do with anything other than like, because of where I am in my life with my family, because I had my first student on the spectrum, and because I also have this curiosity and suspicion that like, 'oh, we're all on the spectrum to greater and lesser degrees.' I'm so interested about past students I had, and my experience, students' experience of...Let's see, if I can frame this appropriately...I don't give students my accommodation letter that says, 'Hey, I might be on the spectrum, and I have ADHD, and have anxiety'...like they don't know any of this...so the students don't know that they might be triggering different neurodivergences inside of me. It's funny to think about. It's interesting to think about like, how do they accommodate professors?

Similarly, when asking Joan how they work with accommodations for students, they stated that they thought about the students in their class more holistically: "Mostly I just use the [accommodation] letters, and then my own personal desire to not have a discriminatory learning environment." The following sections will emphasize specific areas of challenge as they relate to student accommodation letters.

Lack Of Specificity In Accommodation Letters

One of the challenges mentioned by almost all participants was the lack of specificity in a student's accommodation letter. Dillan reflects on recurring difficulties in supporting students with accommodation letters, stating "Let me say one barrier or

anything about what is going on. [More specificity] would have be most helpful to [the student and instructor] rather than 'this is just a special needs student. Do your best to figure it out on the fly." Recalling a specific student, Dillan stated that "[the student] just had this general, you know, make accommodations for this notification and so it was up to me to figure out what that meant, and I interacted with her, and she had significant limitations in her ability to communicate." They added, "it's quite routine that I receive these requests for special accommodations, and I'm sure you know what those are like. Those tend to be pretty nonspecific. They simply ask, on a voluntary basis, really, the faculty to make some kinds of appropriate accommodations for students."

The frustration on the lack of specificity in accommodation letters felt by Dillan, above, was also observable in my conversation with Lawrence. They stated: "I would feel like it would be great to get if [this university] has information about my students that I could know, I would love that. But we're coming into the classroom with like, an almost a shotgun approach."

Renee also talked about their frustration with the ambiguity of the accommodation letter. They said, "I have had many students provide me with accommodations. But [the Disability Services Office] really like it general, so you don't know. [The Disability Services Office] really love it for us to not know what's going on." When describing their frustration over the oversimplification of accommodation letters, Renee added:

You know, it used to be the ADHD people would get the time and a half on tests, the anxiety disorders would get the 'get up and leave the room anytime they feel like it' one, and there would be other clues. But now everybody gets everything. Yes, everybody gets every accommodation in the book. My letters are just...they're all the same. Everybody gets everything. So I don't know anymore...But I wish we knew, even if anonymously I mean. I have had students come up to me when it used to be that they would provide you with their physical accommodation. They would come up to me and say I have OCD, or I have XYZ...More and more the students don't show up to do a one-on-one, so I never know.

Joan also mentioned how some indication of the make-up of students in their course would be helpful, especially when assigning groups in large, introductory courses:

But it's also again, it's kind of hard, because, without knowing who's in my class that might actually have a neurodivergence that would make team work more difficult for them. Then I can't even watch out for that to scaffold...I can't say 'Oh, here are the neuroatypical kids that are going to struggle with teamwork because of social interactions and interpersonal stuff'...So let's provide that team a little bit more support, or let's check in with that team a little bit more. I'm just flying blind and honestly, we don't know if there's a problem until it becomes so big that it comes to us.

In sum, this theme depicts the obstacles presented to faculty members when

accommodation letters are generic and indistinct to the student or student population in their courses. Nearly every faculty member interviewed expressed frustration in figuring things out "on the fly" or "flying blind" due to lack of specification and guidance regarding a student's particular needs.

Student Lack Of Knowledge and Resources Around Accommodations

Another challenge that accompanies accommodation letters is that students do not always know what accommodations might be available or how to request something that is outside of the more common accommodations given. For example, Kristen explained this challenge in relation to her students as well as to an immediate family member:

I just think like the biggest risk is some of them...not all, but they don't know that they can ask for more accommodations, and so I think that's the biggest risk. And I think the biggest need that I don't see is the flexibility...I just see time-and-a-half and that's great but that's not really where the problem tends to be. You know my daughter has accommodations for an invisible disability...she has chronic migraines...Obviously, I could coach her about what to ask for when we're setting up the accommodations. And if the disability and access person is like 'oh, time-and-a-half [is what we will give you]'...But if you don't know 'oh, I can ask for something else,' [then you won't get it].

Kristen goes on to describe a more recent experience, highlighting the juxtaposition of what the student was given versus what the student actually needed:

So I'm thinking of a student last semester and if I'm recalling correctly his accommodations for sure had time-and-a-half, and I think that may have been the only accommodation formally that he had, but what he needed and what I gave him was flexibility with deadlines. And you know, if I'm recalling correctly he didn't ask for that, but because I knew kind of his situation, and you know he was struggling with an assignment, and he couldn't come up with a topic, and it was partly because he was being literal about the topic, and so I helped him kind of come up with like some examples of thing he could write about, and then I just said to him, like, you know, 'why don't you take a few extra days?' So I think, you know, some students who maybe aren't on the spectrum, and who come from a certain background, would know 'oh, let me just ask for an extension.' I don't know that he was either new or felt uncomfortable asking for an extension, because, like the assignment is due on a certain day.

Lawrence recalls a semester when they had several students who had accommodations, but it was clear that the students were unsure how to manage the implementation of classroom modifications as well as how to advocate for what they needed:

This was in the fall semester, and I probably had, I don't know, I want to say three students who, you know, had letters. I let students know that, especially because it is a [course for first-year students], I think one of my jobs is to help them understand 'how to college,' and to say, 'listen, every professor gets these accommodation letters. It's super easy. We're all really used to it. You should

have no anxiety about going to visit with your professor, and please let me know, and the sooner you do it the better, because it just makes class easier.' And so I make it pretty clear. And then, you know, typically the students, slowly, you know, usually all but one, and then usually late in the semester. One is like 'I never gave you my letter, but we need to do my letter.' I don't have a specific memory about this other than the student saying, 'I have an accommodation letter, and we should meet.' And yeah, then we just sit down and go through the syllabus together and say, which of these things will be easy for you? What is going to be difficult? What accommodations have you received in the past? What seems useful to you? I think it was important to the student that I know, and that there some sense of, if my memory serves correctly, it was about attention in class, and that they are not zoning out. I am engaged in my way, and that this is the way I'm going to experience the class.

From this encounter, it is clear that Lawrence helped the student process which accommodations might be helpful as well as how the accommodations the student received could be successfully implemented in this particular course.

It has been shown through faculty members' reflections above that often times students are unfamiliar with how to work, or that they need to work, with their instructor to implement accommodations in the classroom. In addition, it has been shown that students do not always understand how to request additional or alternative accommodations. As will be discussed in the following sections, faculty members have

found ways to address these and other challenges that may be associated with accommodation letters.

Addressing Accommodation Challenges

All faculty participants have encountered students in their classes that they believe could benefit from accommodations or be better supported by modified or additional accommodations than listed on their letter. In addition, several faculty members discussed how implementing a Universal Design for Learning approach would address students who have no accommodations, but who might benefit from having them, as well as students who have overgeneralized accommodations. However, implementing a different pedagogy such as Universal Design for Learning also poses its own challenges. Kristen acknowledges this by stating: "So I have the [Teaching and Learning Center] voice, saying, 'you know you should really do it this way.' And [the faculty side of me says], 'but let me tell you the reason why that's too much work at this moment, you know, to change'...So I have a way, a long way to go."

Lawrence discussed how they think about providing support for their students in a more holistic way in order to address challenges associated with accommodation letters (or lack thereof).

As I said, there's no training for like what we have to do. We just would sort of think what we need to do for this student to make the students successful, which in so many ways is not unlike a neurotypical student. We still have to think about like, how do we serve the student? What does this person need? Why is this not

working? So, in some ways, the experience sort of feels new in a certain vector but it is similar to all other experiences. It's just on a new vector.

Continuing on the theme of providing accommodations that might offer a supplement to those on the letter, Kristen recalled a student they had in their course five or six years ago:

I know he was on the spectrum because he told me. You know, so I knew for sure. And at that time I looked around the university to try to find out like, are there any resources for students? And I think it was a faculty member...who had some sort of group for students on the spectrum...I've never sought out specific information regarding people on the spectrum. But what I found is that trying to use like universal design, and those kinds of inclusive practices helps people and students who are on the spectrum.

Overall, faculty members instituted a variety of methods in order to address challenges presented by student accommodation letters. Several mentioned implementing strategies such as Universal Design for Learning, while others took a more holistic approach to accommodations, considering the student's needs as well as what is and is not working well in the classroom.

Redefining Disability in Order to Reframe Accommodations

As discussed in chapter two, the social construct of disability has been reframed over the last several decades. This reevaluation moved disability from a deficit model to one where an individual's disability is based on interactions between both personal and environmental factors (Buntix & Schalock, 2010). Several faculty members described

how they reframed their challenges with accommodations into opportunities for interaction and understanding.

Lawrence stated that after years of teaching, they modified their attitude towards students in the classroom based on their own personal experiences and self-education around disabilities:

[I remember] the first student who said 'I have autism spectrum disorder'...we went through their accommodations together, etc. But in all of this I think the book that probably impacted me the most was the [personal] reading, that selfeducation that impacted me the most before any sense that we might be dealing with autism spectrum disorder [with my daughter]. It was really reshaping my thinking from 'Oh, in the same way that I like describing all students needing special attention' to 'oh, there's just a lot of ways to be a human.' And if this is another way to be a human then cool like, instead of thinking about this as 'there's a problem or a syndrome,' and now I'm super fascinated with the conversations I'm having with my wife. What we're dealing with and what we're struggling with and what we're celebrating and what are natural tendencies. I was thinking about the wonderful thing about this [additional] book. [It talks about how] there's some difficulties, but there's also a lot of really positives, and even about ADHD, which is probably where I read the most deeply...there's a great tendency toward neoteny, and they can feel younger longer, and more playful longer, and all this like, which is, you know, I teach [imagination and writing]. I think I have a high

degree of neoteny, and then I think most adults would. Most human beings would do better to develop habits that could prolong that sense.

Although they teach an introductory-level course that has a set curriculum across six or more sections, Joan went against the standard format of how lectures and exams are given in the sciences to integrate how they define accommodations and disability:

There are five other people who are teaching [this course]. We're supposed to do things in a particular way. I am supposed to give three, one hour, 100 point, highstake exams every semester. It's terrible. That's the worst way to learn. And I just don't do it. So at some point I could get totally knocked for that. But instead I give six half-length, lower stakes...I called it quizzams. Then what actually ends up happening is that everybody gets double-time. Everybody gets access to a computer because I give the quizzams online. So I've just taken the most common accommodations that I see...I record all my lectures. Everybody gets access to the lecture recording. We have a Google Doc, where everybody can see the notes... and then that way, when people miss an assignment, you have seven days, I give it seven days of flexibility, and most people don't need it. [It is good for] the people who benefit from it a lot, and it also catches people who haven't been diagnosed or who don't have the letter, but still need the help. So it's like, that basic. I've just kind of worked it all in. And very few accommodations end up [being needed]. I don't give my tests in lecture. They're given online. You can take them anywhere. So if you need an isolated environment, there you go...you know there are very few accommodations now that I get where I'm like, 'oh, that's

actually something I need to accommodate,' because otherwise, they're basically built into my class.

In sum, faculty members who have taken a different approach to defining disability find that their students often need fewer individual accommodations in the classroom. Personal experiences, along with different pedagogical techniques, can mitigate challenges brought on by accommodation letters and the need to tailor instruction to each student individually.

Using Empathy as a Teaching Tool

Addressing challenges in the classroom and with accommodation requests can compel faculty members to consider different mindsets while teaching. Similar to Donato's research (2008) that articulated barriers to student accommodations and the need for empathy while working with students with disabilities, several faculty members in this study noted how intentionally practicing empathy in the classroom can be helpful for all students.

During their interview, Kristen mentioned that they "liked what [I] said about empathy, and I think empathy and flexibility are what's needed and helpful, and also just a basic understanding of some of the attributes. You know of some of the people who are on the spectrum, you know, because everybody's not the same. But I think that goes a long way…"

When asked about their students over the last few years, and whether there seemed to be any empathy in the classroom, Renee recalled a time that students exhibited understanding and support of a fellow student:

I had another one that I think the students did a really good job with. This kid would sit up front and ask really odd questions, and then do odd things, you know, like, he said 'Can I write my paper by hand?' I said, 'No, you have to type it.' And he turned it in as a handwritten paper anyway. I mean that could just be...I mean I've just never had anybody do that before. You know, and he just would rush up after class and ask you these questions in such a passionate way, and, the question would be like, 'Does it have to be double spaced?'...odd things you know and just lots of lots of that. Well, then we have the group, the small group...Discussion group labs, and then within that, I had a project where they got into even smaller four to five people groups, and the folks that were in the group with him--you know we thought, the TAs and I were like, 'Oh, my God, you know nobody's going to want to be in this group. What are we going to do?' We let them pick their groups rather than assign. But these two students, this guy and girl, did a great job. And then, later on, the student on the spectrum said some things that made his groupmates think he was threatening his life, threatening to take his life. And they were so good. You know they contacted us immediately and asked, 'What do we do?' We're like 'Call [the behavior concerns hotline],' you know, and all this stuff and they were so compassionate and nice to him, and I just wonder if they...I mean we never talked about it directly...but I just wonder if they didn't have some experience either in their family, or with other friends, or something because they handled it so beautifully. Freshman, you

know...really popular, good looking kids, you know, they could have any friend they wanted, and they befriended him.

What is also interesting to note in Renee's account of this event is the mention that these two students "must have had some experience with a family member or friend who was on the spectrum." This statement further substantiates the notion that those with personal experience with people with on the spectrum are perhaps more likely to show empathy.

In sum, my analysis of RQ3 has deepened our understanding of the challenges faculty members encounter when working with students on the autism spectrum. The study found that the use of different pedagogies such as Universal Design for Learning and teaching approaches, for instance, the use of empathy, can help temper generalizations in an accommodation letter. In addition, it was found that faculty members often create individualized methods for working with students regardless of whether or not the student has an official accommodation letter.

Summary

This chapter reviewed the results of the data sources, which included a background questionnaire and semi-structured interviews with seven participants in this phenomenological study. The purpose was to answer the three research questions about their experiences working with students on the autism spectrum. Several themes focused around personal and professional experiences and perceptions, and some challenges were identified from the themes. It was shown that faculty members' personal experience and interaction with people with disabilities shaped their approach in teaching in a higher

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education setting. The study also revealed that little to no formal training on the topic of students on the autism spectrum was available or made use of by the faculty members in this study. The following chapter is the discussion of the themes and implications for future higher education research and practice.

Chapter V: Summary, Discussion and Implications for Higher Education Research and Practice

This study addressed the need for increased understanding of and accommodations for the rapidly growing number of students on the autism spectrum who are entering institutions of higher education each year. The findings validate the need for faculty members to become more knowledgeable regarding support for students with disabilities and their accommodations in the classroom. More importantly, the findings also indicate the need for accessible pedagogical practices for faculty in order to teach all students, regardless of disability status (McKeon, et al, 2013). Employing a qualitative approach, this study sought to answer the following three research questions (RQ1, RQ2, and RQ3):

- 1. How do faculty members describe their experiences with students with autism spectrum disorder at a large, public, four-year university?
- 2. What are the perceptions of faculty members about students with autism spectrum disorder at a large, public, four-year university?
- 3. How do faculty members address the challenges they encounter when working with students with autism spectrum disorder at a large, public, four-year university?

To answer these research questions, this study applied a social constructivist framework, which emphasizes the importance of both social and physical aspects of being. Social constructivism was applied and revealed throughout this study, as faculty members constructed their perceptions of students on the autism spectrum based on how

they have engaged with this population in their own personal and professional lives (Crotty, 2012).

Throughout the study it was shown that faculty members' knowledge around students on the autism spectrum was, in each case, personally constructed. It was then solidified by cultural and societal experiences in the classroom (McRobbie & Tobin, 1997). Specifically, critical disability theory was used throughout the study to analyze RQ1, RQ2, and RQ 3. This theory focuses not just on the way disability is socially constructed, but rather on finding practical solutions that can be implemented in practice by higher education professionals and faculty (Reaume, 2014; Shildrick, 2012).

A purposeful and homogeneous sampling approach was employed to identify faculty members who currently teach undergraduate, entry-level courses at The University (Etikan, et al., 2016; Rai & Thapa, 2015). The sample group consisted of 163 faculty members whose names and courses were listed in The University's Spring 2022 and Fall 2022 course schedules. Emails were sent to all 163 faculty members on the sample list in November 2022 and asked general questions about their time at The University, what their general knowledge level was regarding autism spectrum disorder, and whether they would be willing to be interviewed as part of the treatise project. Forty-five faculty members responded to the survey, and of that group, nineteen responded that they would be willing to be interviewed. After consideration of a variety of faculty ranks, departments, and years at The University, twelve invitations for interviews were sent. Ultimately, seven faculty members who represented various disciplines, a diverse

array of prior experiences, and a robust range of years of teaching were interviewed for this study.

Each of the seven interviews lasted between forty-five minutes to just over an hour. Participants were all asked several questions in the semi-structured interviews, and follow-up questions were occasionally asked for clarification or elaboration purposes. Pseudonyms were used to protect each faculty member's identity: Dillan, Joan, Kristen, Lawrence, Lydia, Renee, and Susan. Transcripts of each interview were sent to participants in order to give opportunities for editing and promote transparency in the process. Lastly, an interview with Molly, a staff administrator at The University's Disability Services Office, was conducted. Here, I was able to discuss some of the recurring themes from the faculty interviews in order to dispel inaccuracies around accommodations, consider how to frame disability and accommodations in a more holistic way, and describe ways of disseminating new and existing professional development opportunities to faculty. Speaking with Molly regarding the faculty feedback helped to build trustworthiness and validity for the study.

Key Findings and Contributions to Higher Education

This section summarizes key findings from the study and offers important contributions to our knowledge base in higher education, with particular regard to faculty experiences, perceptions and professional development concerning students with autism spectrum disorder. In this section, the following key findings are discussed: (1) personal experiences and encounters with people on the autism spectrum influence and shape faculty members' perceptions of students in their courses; (2) faculty members receive

little to no professional training on teaching neurodivergent students, including students with autism spectrum disorder; and (3) faculty members use various strategies to combat generalizations in accommodation letters.

Personal Experiences with People on the Autism Spectrum Can Positively Influence and Shape a Faculty Members' Perception of Students in Their Courses

As stated in Chapter 2, the development of prior personal connections of people with disabilities was responsible for faculty members' attitudes toward students with autism spectrum disorder. The participants in this study support these earlier findings in several ways. First, the seven faculty members who took part in this study all took the initiative to share their voice by agreeing to be interviewed. It is important to note that when selected, it was not yet known to the interviewer that all faculty members had some personal connections with people on the autism spectrum. It supports prior research by Rush (2011), that suggests that faculty members who have had personal experiences with people on the spectrum are more likely to offer student support, be willing to engage in conversations around neurodivergence, and advocate for student success.

Prior research by Hipola and Pastor (2011) showed that positive attitudes of faculty can be correlated with the level of student satisfaction and success. As mentioned in Chapters 2 and 4, disability has been and continues to be redefined as a social construct, where individuals make meaning based on personal encounters and environmental factors. During their interview, Lawrence stated that they changed the way in which they teach based on recent changes in their family: "I'm fascinated at the conversations at home about what we are dealing with and struggling with and

celebrating [with regard to a recent diagnosis of my daughter]. I was really reshaping my thinking from 'this is a problem or a syndrome' to 'oh, there's a lot of ways to be a human.'"

In sum, all participants in this study expressed an interest in understanding more about their students on the autism spectrum. This study suggests that a faculty member's willingness to recognize the value of difference, as well as support various ways of learning and being, was directly correlated to the fact that all had prior personal interactions and experiences with people on the autism spectrum. This finding contributes to the knowledge base by amplifying how a faculty member's personal experience with disability can translate to a positive experience for the students with disabilities in their classrooms. In this study, more emphasis was placed on how students learn rather than how faculty members need to acclimate to an increasing number of accommodations.

Faculty Members Receive Little to No Professional Development or Training on Educating Neurodivergent Students, Including Students with Autism Spectrum Disorder

Research by Gobbo (2014) found that faculty in higher education must understand the scope of challenges as well as strategies for success as they make important decisions about how to teach neurodivergent students. Similarly, prior research by Davis, Watts, and López (2021) concluded that institutions of higher education need to provide appropriate professional development for faculty members that is focused on students on the autism spectrum. By the same token, in 2014 McKeon et al. recommended that

faculty who experience a growing number of students on the spectrum will need information that expands their knowledge base.

Throughout this study, faculty members disclosed that they have had little to no professional development in working with students with disabilities, particularly those on the autism spectrum. Participants expressed the need for more guidance and training around supporting this student population. For example, when asked about the challenges of professional training, both Joan and Dillan discussed how the culture of academia does not always allow for that. Joan mentions how they have encountered the mindset in higher education that "if you can't do it this one way, you don't belong here." They go on to describe their analysis of this mindset, stating that "The value [in academia] is not every human has a right to education. There is not training for [this] because it's not even really seen as necessary…if they can't hack it—get out."

Dillan concurred with Joan's statements that "there tends to be an attitude amongst my faculty peers to be pretty hard on the students. They need to just 'get' this stuff." However, Dillan goes on to state that he feels hopeful for the future: "I very much appreciate the attitude that the [current University] administration has had in that we want to recruit the very best students we can, and do what we can to help them achieve their success...long gone are the days when you enter as a freshman and sit in this monstrous class and say 'look to your left, and look to your right, and only one is going to graduate.'

And for a long time that was designed into our educational systems."

Although there are ways in which The University provides professional development and training for faculty, it can be difficult to engage faculty in these

conversations around disability until it affects them directly. For example, Molly from the [Disability Services Office] mentioned that their office is usually on the agenda for New Faculty Orientation at The University, and often table at the Resource Fair each year. Recently they held an optional presentation with the [Center for Teaching and Learning] regarding universal design and proactive accessibility. However, as has been their experience in the past, the only faculty members who attend those trainings are ones who already have some experience and knowledge around the topic.

The disconnect between what faculty members request and how that information could be provided to them is also apparent in this study. For example, when discussing formal training, Renee expressed frustration that faculty members spend a good amount of time completing compliance modules that do not provide any new or timely information. They go on to express "I feel like I spend so many hours taking [a] training over and over again, you know, and I understand that it's important, but I'm not going to say give us another training module. If there's anything you could do that would just be like a quick read for people. But I don't want to spend hours and hours on more training." Kristen confirms that there are difficulties of providing resources to faculty. When asked about opportunities or outlets that would better assist them in working with students with disabilities, they stated: "I would want the opportunity to talk with other like-minded faculty who have worked with different students and see what they came up with [but] I don't think a lot of faculty want that...it can be difficult to sell people on something they are required to do but don't want to do....how do you make people want to have empathy?"

As has been shown, autism spectrum disorder is no longer considered in a medical-only approach, where scholars and practitioners search for a cure to an illness. Instead, autism is now understood as a variant of normal brain development (Subramanyam et al., 2019). Therefore, this change in how society views people on the spectrum can further focus the knowledge base around the value of difference rather than tolerance of divergence, specifically in the classroom. Rather than educating faculty members on the medical diagnosis of students in their class, we can move toward implementing strategies that address the environment rather than the specific disability. Attending to some of the challenges around how to ensure faculty members are provided with information they need is addressed in Key Finding 3, below.

Faculty Members Use Various Strategies to Combat Overgeneralizations in Accommodation Letters

Prior research has found that students with autism spectrum disorder present unique challenges for college faculty, including frustration with accommodations and the legitimacy of invisible disabilities (McKeon et al., 2013; Scott & Gregg, 2000). More recent research noted that instructors need to understand that students with executive functioning difficulties (prominent in autism spectrum disorder) have the intellect but not the processing piece needed to be successful in college (Shea et al., 2019). All of the faculty members participating in this study described frustrations with a lack of specificity in student accommodation letters. Most suggested an aggregated list that describes the specific registered disabilities they might encounter in their classes each semester. In their interview, Dillan voiced this frustration by stating that "the letters

hardly ever say anything about what is going on [and that] more specificity would have been most helpful." Supporting Dillan's thoughts, Lawrence stated that "it would be great to have information about my students that I could know," while Renee added that they feel as if the [Disability Services Office] "loves for [faculty] to not know what's going on."

These concerns regarding the oversimplification of accommodation letters, along with what some faculty described as "secrecy," have been brought to the attention of the [Disability Services Office] over the years. In speaking with Molly, a long-time administrator at [the center], I asked if [the center] could provide such as a list of unidentified student accommodations and/or disabilities to the faculty (if requested). Molly replied:

So this has been brought up before with professors kind of wanting to know more about the students in their class. That [resource] does not exist and will never exist, because that is tied to confidentiality. So [our office] cannot share any specific information about students with instructors. So even to say there's a student with migraines in your class—we would not be able to disclose that. We do share in the aggregate how many students register with the disability access office, and the percentages of types of disabilities university-wide, but we would never provide that specific to each course. Part of that is for the legal reasons, the other reason is that in a lot of cases it isn't really relevant when you're coming to accommodations. [For example], if you're saying the student needs time-and-a-half, you don't need to know why this student needs time-and-a-half. What we

always tell students is [our office] cannot and will not disclose disability information. But you, as the students, are welcome to share whatever would be helpful.

In addition, Molly raises an important distinction between the need for clinical information and the lived experience for people with disabilities. She suggests the following to students when asked about disclosing disability and requesting accommodations:

If you're going to disclose, think about it within the context of the course. This doesn't even have to be diagnostic information. It could be 'I am a visual learner, so it's really helpful for me to have copies of things that you're saying in class.' Or 'It's helpful for me to have it in a written format.' Or 'Because of my disability, I may be missing class more frequently so because of that, what are my options?' So really focusing more on the behavioral manifestations of the disability rather than the diagnosis. And I think that's really what instructors are wanting is that like, how can I support this student beyond what's in the accommodation letter? But they're more focused on 'knowing that this student has migraines, or epilepsy, or diabetes will help me' when that's not really what would be helpful. What would be really helpful is to know that I might miss class, or I might need to have food or drink in class...how that impacts the student in the class is what the faculty might want to know, or what students might want to share. And that just tends to get misinterpreted as 'if I knew their disability, I would then be able to better support them.'

In order to address the concern of lack of specificity in accommodation letters, as well as providing support for those students who may need accommodations but have not been formally diagnosed, faculty members have come to learn different pedagogical approaches that aim to see the students in their class in a more holistic way. For example, roughly half of the faculty members interviewed discussed implementing a different teaching approach, either by name or simply by description, in all of their courses.

One such practice mentioned was University Design for Learning (UDL).

Universal Design for Learning is a framework to guide the design of learning environments (classrooms) that are accessible for all. By moving the emphasis to teaching and pedagogy, UDL aims to change the design of the environment rather than to change the learner. When faculty members implement universal design practices, they are intentionally reducing barriers and challenges so that all students can engage and show proficiency in diverse ways (The UDL Guidelines, 2022). As Lawrence mentioned during their interview, they have moved away focusing on required documentation and instead around how to help each student be successful in their own way: "How do we serve the student? What does this person need? Why is this not working?" Lawrence goes on to say that these are the same practices faculty members have done with neurotypical students for generations.

This key finding also supports previous research (Donato, 2008; Hipola & Pastor, 2011; LeGary, 2017; Scott & Gregg, 2000) that identified factors such as empathy and flexibility to be associated with academic success for students with disabilities. Several

faculty members in this study, in particular Dillan, Renee, and Kristen, discussed how intentionally practicing empathy as an instructor has helped them address accommodation challenges in the classroom. Additionally, practicing empathy while teaching can help model empathic behaviors to all students. Renee recalled a time that students exhibited an empathic mindset towards a classmate who was on the autism spectrum and worked to include the student in a way that everyone participated and took part in whatever piece of the group project they felt most confident. Lydia remembered a time when a student was excluded from their assigned group, but was then asked to join another student's group instead.

As has been stated in Chapter 1, the number of students with autism spectrum disorder who are entering college has grown significantly over the past few decades (Zager et al., 2013). As a result, faculty members are receiving an increase in the amount of accommodation letters they receive from students each semester. Universal Design for Learning can help address the difficulty of faculty members managing more accommodation letters than ever before. Although in their interview Kristen discussed how they know they should use UDL, they and other faculty members may not be due to the fact that redesigning your class "is too much work at this moment."

To counter the argument that universal design takes too long to get set up, Molly from the [Disability Studies Office] stated:

For instructors who are complaining about the volume [of accommodation letters]...I promote UDL as an investment in students and as a time saver. I can understand that it would be difficult to keep track of note taking accommodations

for fifty students. However, if you proactively share your slides and have a note-taking system, then you don't have to remember that. Course remediation does take time and energy, and that's real. But it is also an investment that can pay off later, because you've already done the work, and then it's not going to be on that individual basis for thirty different students as it also benefits all the students who *aren't* registered at all. So yeah, why not try all the different angles you can come at to really say, like we should be going in this direction. And while I appreciate your desire to learn more about, you know traits of autism, and you definitely can do that, here's probably a better use of your time that's going to be more impactful for a larger number of students.

In sum, this finding emphasizes the importance of focusing on the needs of the student rather than the medical diagnosis in terms of support student accommodations in the classroom. Molly reframes a student accommodation by moving the conversation from the specific disability to one of classroom environment:

So again, always coming back to 'what does that mean for you in this class?' Or 'how can I support you in this class based on that information?' So it's really kind of disentangling what I need to know about Type 1 diabetes, or what type of epilepsy you have, or what do your manic episodes look like. That's the role of [Disability Services Office]. We're asking those questions so that we can formulate the accommodations. The professors conversation should be 'what does this mean for you?' And then that's on the student to share as much or as little as they want. A student might share a little bit more about how working in a group is

going to be challenging. We want to steer away from diagnostic details and symptoms and really more, 'here's what this means for me in your class,' based on what you know about the syllabus, assignments, class structure, etc.

Understanding how to address and overcome challenges with regard to accommodations benefits more than just the students who have the letter. A growing concern in K-12 and higher education is that there are racial, ethnic, and sociodemographic diagnostic disparities in autism spectrum disorder (Aylward, et al., 2021). Therefore, factors outside of a student's control, such as discrimination, poverty, and access to quality health care, may prohibit that student from an official diagnosis before or during college. This study supports more recent research on how changes in pedagogy and classroom environments can positively impact students with undiagnosed disabilities. As will be discussed further in the following section, redefining accommodations to address what the student needs can be implemented in a more holistic way, allowing faculty members to consider many more aspects that make up each student in their classroom.

Implications for Higher Education Research and Practice

In my analysis of key findings, there are several research and practice recommendations that emerged that can support faculty members to better serve students with autism spectrum disorder. As a scholar-practitioner, I have found that direct support of student populations is not always feasible, fruitful, or sustainable. Instead, I have found success by taking a holistic approach and considering the whole student—what they need, who can meet those needs, and where there may be gaps in providing those needs. Below, for example, are recommendations for

research and practice that aim to weave faculty members' experience and expertise into the fabric of the current student population. Practitioner-based implications focused on how university administrators can support students via faculty members will also be discussed below.

Summary of Limitations

There were several limitations and assumptions in this study. First, this study only focused on faculty members in a large, public, four-year university and only on faculty who teach primarily first-year or entry-level courses. Additional perspectives, such as research focused on two-year community colleges or small, private institutions, may have yielded different results. Moreover, faculty members who teach upper-division or graduate-level courses could also result in distinct outcomes.

Second, this study assumes that the number of students with autism spectrum disorder will continue to rise in higher education, thus impacting the urgency of recommendations and implications for higher education research and practice.

Additionally, data on the number of students with autism spectrum disorder at any institution is reliant on those students registering with the Disability Services Office on their campus. While the stigma around disabilities may lessen over the coming years, there remains an equity issue in terms of accessibility to mental health resources, testing, and services.

Third, this study assumed that certain best practices related to pedagogy and perception were not well integrated into faculty professional development at The University, thus justifying the need for this research. Perhaps the participants in this

particular study were not aware of resources available to instructors, or did not participate in services offered to them.

Recommendations for Research

Over the last several decades, much of the research in this area has been centered around the student and parent lived experience (Zeedyk et al., 2019). Although there has been research conducted around faculty experiences and how those correlate to the specific needs of students on the spectrum (Donato, 2008; Hipola & Pastor, 2011; Houck et al., 1992; Scott & Gregg, 2000), there has been less focus on how a faculty member's personal experiences with people on the autism spectrum correlate to their pedagogy.

In addition, the evidence base for social supports for students on the autism spectrum point to a lack of awareness by faculty members regarding challenges experienced by students on the spectrum (Hewitt, 2011). Research has also shown that the relationship between the student with autism spectrum disorder and the instructor will determine the academic success in a particular course, and therefore impact that student's chance of success in higher education (Austin & Peña, 2017). As was demonstrated in this study, those faculty members with a personal investment in people with disabilities led to their openness and eagerness to learn more around universal design and meeting the student where they are.

Suggestions for future research in this area might focus on identifying faculty motivations for inclusion as well as determining which traits make particular faculty members more empathetic towards students with autism spectrum disorder. Furthermore, research on factors that may influence empathetic teaching, such as age, gender, or

location could be examined to find themes as well as where there may be gaps in practical application on college campuses.

Likewise, research interpreting faculty perceptions of disability centered around faculty disciplines or home departments may amplify where there is a need for culture change and/or professional development. As a result, focused research on a faculty member's area of study may provide more structured outcomes and implications for those particular schools and colleges.

As was shown in this study, staff members from the Disability Services Office participate in New Faculty Orientation, providing incoming faculty an overview of their services and general information about student accommodations. It may be assumed that New Faculty Orientation is centered around (and/or has a large number of) a younger demographic of instructors, including many starting their career in academia. While it is beneficial to educate, even if only briefly, this new group of faculty members, it does not capture many of the tenured or long-standing faculty at a university, some of whom may not be familiar with new pedagogies and/or new diagnosis for invisible disabilities. Therefore, research on faculty rank as it correlates to positive impact in the classroom environment may show a need for continued professional development for established faculty at a university.

Lastly, research that considers other frameworks may yield results that can inform higher education scholar-practitioners in unanticipated ways. For example, considering crip theory, which, in tandem with critical disability studies, looks to challenge the deficit perspectives of disability, along with how the disability community holds value. Crip

theory works to change the dominant perspectives of disability, often in educational settings. By employing this lens, researchers may explore the complex workings of power and normalization in contemporary cultures, specifically within our higher education system (Hanebutt & Mueller, 2021). Here, research could focus on the faculty-student power dynamic, as well as explore and validate the lived experiences of disabled students and faculty in a culture of ableism (McRuer & Cassabaum, 2021).

The following sections provide suggestions for higher education administrators and faculty members based on participants and findings in this study. These recommendations range from overarching initiatives to specific projects that bring theory to practice.

Implications for Practice

This study revealed three key findings that leadership at institutions of higher education can implement to better prepare faculty members in teaching students on the autism spectrum. First, considerations should be made to highlight faculty perceptions and experiences and how those can improve student-faculty relationships. Second, this study found that faculty members need more focused professional development around the topic of disability. Lastly, administrators at institutions of higher education should engage with their Disability Services Office and partner to change the culture around disability and access.

It is important to note that at many public higher education institutions across the country, offices and initiatives that promote diversity, equity, and inclusion are being scrutinized and disbanded. It is also imperative to recognize that disability is considered

a form of diversity and that the Americans with Disabilities Act protects people with disabilities from discrimination. Therefore, it is unclear how Disability Services Offices on college campuses will continue to provide services that promote an inclusive campus that includes highlighting students and faculty with disabilities.

Personal Experience and the Student-Faculty Relationship

This study supported earlier research findings on how faculty members who had personal experiences with people with invisible disabilities were more positive in their perception and attitudes towards students with autism spectrum disorder (Austin & Peña, 2016; Brockelman et al., 2006). In addition, this work has implications for the transferability of personal experiences to support students on the spectrum.

Giving Voice to Faculty Members' Personal Experiences. Findings from this study revealed that a faculty member's willingness to accept, understand, and empathize with students on the spectrum is in direct correlation to their personal encounters with people with autism spectrum disorder. These personal experiences have helped participants transform disability from something difficult and frustrating to a way in which to teach the whole student and to change their teaching practices. University leadership should embrace faculty members' lived experiences and find opportunities for them to share their voice with colleagues, encouraging dialogue and learning.

Professional Development for Faculty

This work has implications for faculty professional development, training, and education around best practices in supporting students on the autism spectrum. These opportunities should focus on *how* faculty members can support their students, regardless

of disability status. By offering programs that change the way in which we frame disability, faculty can focus on student learning rather than being concerned with which characteristics are typical of which disability.

Universal Design for Learning. As has been stated in Chapter 1, the number of students with autism spectrum disorder who are entering college has grown significantly over the past few decades (Zager et al., 2013). As a result, faculty members are receiving an increase in the amount of accommodation letters they receive from students each semester. Universal Design for Learning can address the difficulty of faculty members needing to manage more accommodation letters than ever before. Although in their interview Kristen discussed how they know they should use universal design, they and other faculty members may not be due to the fact that redesigning your class is a huge undertaking, and often the changes are realized once the semester has begun. Again, To counter the argument that Universal Design for Learning takes too long to get set up, Molly from the [Disability Services Office] wants faculty members to think of UDL as an investment that can pay off for semesters to come.

Adopting and implementing pedagogies such as Universal Design for Learning can provide students and faculty a greater likelihood for success. UDL principals address the why, what, and how of learning in order to enable all students access to and participation in meaningful, challenging learning opportunities (CAST, 2018). Learning universal design principals can help alleviate stressors around accommodation letters and, in turn, ease the burden faculty members feel when approached with sometimes dozens of different accommodations in their large classes.

Defining our Students. As was shown in Chapter 4, much of the feedback from faculty member participants in this study centered around the need for more information on the students in their classes. Specifically, faculty members wanted information, deidentified and in the aggregate, regarding what registered disabilities they might encounter in each course they teach. However, disability is not the only facet that defines a student, and factors in the lives of neurotypical students may also impact their performance in class.

For example, faculty members should consider what they might need to know about all students in their course, not only those that have an official accommodation letter. "I work overtime shifts. I have kids at home while I'm working three jobs...these are also things that are challenges to learning for students" states Molly. In their interview, Lawrence stated:

I would feel like it would be great to get any information about my students [with disabilities] from [the university]. But then, frankly, I would also love to know if I have first generation students, students who are not their first semester, knowing that there were students where English wasn't their first language, or knowing that there were students that are first-generation that might not have supports around. All these things could help me think about how I'm teaching.

There is a current disparity between what faculty are requesting and what the university can provide in terms of student data. Although experts in disabilities services are clear that specific diagnosis of a disability does not need to be shared for a faculty member to engage in universal design, there may be a middle ground. For instance,

could a student waive their protections of confidentiality for their accommodations letter? Following procedures similar to Federal Education Right to Privacy Act (FERPA) laws, students can opt-out of sharing restricted information with others. This may allow the student more ownership and control of their information and allow for increased discussions with their faculty members.

Empathy. Prior research has found that empathy can promote better relationships with strangers (in this study, faculty members). For example, empathy can help people adopt more positive attitudes and helping behavior toward stigmatized groups, particularly people with disabilities (Batson, et al., 1997). Professional development around empathy may be difficult to require, however, as faculty members have traditionally steered away from empathy towards students. Prior research finds that faculty members did not find invisible disabilities to be legitimate, and that students asking for accommodations were trying to "work the system" (Scott & Gregg, 2000).

However, empathy can begin with a simple statement from the instructor at the beginning of the semester. Molly suggests faculty members frame empathy as follows: "I am here to support your learning, acknowledge that we all learn differently, and acknowledge that we all have things happening in our lives." Molly goes on to state that "you can never really erase that power dynamic of Professor and Student, but I think you can send that clear message. You know just by how you interact and have those initial communications. [That shows empathy]." Disability advocates such as Molly suggest that faculty members should be reminded that although their class is important, it may not be the most important thing in a student's life.

While the example given above about how to frame empathy can be effective, it only scratches the surface of moving towards a culture of empathic teaching. Teacher empathy has been defined in several ways and for disciplines outside of higher education, including health care, psychology, and social work. In their 2019 work, Meyers, et al., describe how they constructed their working interpretation of teacher empathy. They state:

Psychologist Carl Rogers in *Freedom to Learn* (1969, 157-158) was the first to conceptualize teacher empathy, saying that, 'a high degree of empathy in a relationship is possibly the most potent factor in bringing about change and learning.' He states, 'When the teacher has the ability to understand the students' reaction from the inside, has the sensitive awareness of the process of how education and learning seems to the student...the likelihood of learning is significantly increased' (Meyers, et al., 2019, p. 160).

They go on to state that teacher empathy is an integral part in the role of teaching:

It is the degree to which instructors work to deeply understand students' personal and social situations, feel caring and concern in response to students' positive and negative emotions, and communicate their understanding and caring to students through their behavior. Rather than being a characteristic instructors do or do not have, teacher empathy exists along a continuum (Meyers, et al., 2019, p. 161).

To move towards a culture of empathy in instruction, higher education administrators and leadership need to address and reimagine what it means to teach at a post-secondary level. The presumption that faculty members need only be experts in their

respective fields to be effective teachers is outdated. It is clear that merely attending a brief session about the Disability Services Office at New Faculty Orientation is not the answer to culture change around teaching. Empathic teaching may be obtained by proposing a structure where all faculty members, tenured and non-tenured alike, are engaged in and assessed on new pedagogies, student trends, and providing an inclusive classroom environment.

Examples of embedding empathy into faculty trainings and expectations include required sessions on Universal Design for Learning at New Faculty Orientation; required viewing of online modules where faculty discuss *how* they incorporated empathy into their classroom; required feedback from students on course evaluations that center on if and how their instructor respected them as a person, or perhaps if they felt their professor valued their lived experiences. In addition, empathy modules and professional development activities can be embedded into the tenure and post-tenure review process, asking faculty members to describe their philosophy on teaching and/or providing an example on how they incorporated empathy into their teaching. All of these suggestions are only possible if campus leadership determines that empathy is a critical piece of teaching excellence, and that teaching excellence is at the core of the university's mission.

Culture Change on Campus by Partnering with Disability Services Offices

This study provided evidence of how collaboration between faculty and campus disability services offices can have a positive impact on student academic success.

Findings suggest that many of the faculty members interviewed were of the opinion that

the Disabilities Services Office staff were withholding information that could be helpful in supporting their student(s) with a disability. On the contrary, disability services professional staff hope to empower faculty members to consider new pedagogical approaches that would benefit all students in their courses.

Based on the findings, it is recommended that university leadership champion and further the understanding of disability by highlighting the experiences students and faculty with disabilities bring to campus. An example of this might include a series of electronic media and short videos that could be disseminated across campus via digital bulletin boards. Another possibility could include a campus awareness campaign that joins Disability Services and faculty leadership groups such as Faculty Council, Distinguished Faculty Committees, and Deans and Department Chairs. This campaign, titled *See You on the SpeCtrUm*, could highlight faculty members and students who are neurodivergent and exemplary in their scholarship, leadership, and research on campus.

Additionally, a collection of in-time or as-needed modules or videos may also prove helpful for faculty members, as they can view them as challenges arise, rather than front-loaded at the beginning of a semester or year. Such videos may include a conversation between a faculty member and a student, where they discuss common challenges and offer solutions. Hearing the student voice and seeing colleagues brainstorm new ways of thinking in these videos may help provide a functional impact for current students in the classroom.

As stated in the interview with Joan, there is currently not a feedback mechanism to evaluate how faculty work with neurodivergent students. Longer-term initiatives may

include required end-of-semester course instructor survey questions on classroom environment, including the opportunity to provide multiple means of engagement, comprehension, and proficiency. Thinking holistically about creating student success through inclusive classrooms can be of benefit for both the students, by having their respective needs met, and the faculty, who can make their classroom and materials more accessible for all. To this end, it is suggested that faculty members be required to attend a workshop on Universal Design for Learning, empathy, overcoming accommodation challenges, or a number of other established or newly-created offerings in collaboration with the Disability Services Office.

Reflections on Positionality

It is important to note that my professional role may have provided me greater access to participants or sample bias, as I have worked with many faculty members who were sent the original survey. When selecting participants for interviews, however, I sought to choose those faculty members whom I have not worked with as closely or at all. As was mentioned in Chapter 3, I am a mother of an adult son with autism spectrum disorder, and thus recognize that I may have researcher bias in this study. This personal lived experience, as well as my current professional role in higher education, was disclosed to interview participants at the beginning of our conversation, thus allowing them to terminate our meeting if they felt the research process was not valid. However, quite the opposite occurred and the disclosure of my personal investment and professional interest in the topic led to a deeper level of comfort and for more fruitful conversations.

Summary

This study provided an exploration about the knowledge, perceptions, and challenges of faculty members working with students with autism spectrum disorder. More specifically, this study examined both personal and professional experiences in order to identify factors that influence teaching in the classroom. The findings emphasize the need to create more opportunities for faculty members to learn about students on the autism spectrum. In addition, findings show that faculty members need guidance on teaching pedagogies and methods that can positively impact not just students with disabilities, but all students in the classroom regardless of disability status.

Theoretically, this study was designed to apply social constructivist theory, coupled with interpretivism, as a framework for understanding how faculty members engaged with students on the autism spectrum in higher education. Critical disability theory was also implemented to challenge social norms as it considers disability as both a lived experience and a social construct (Reaume, 2014). These theories and frameworks were chosen as they lend themselves to research but more so to pragmatic solutions (Shildrick, 2012).

Methodologically, this study employed a qualitative approach, deemed most appropriate as the findings relied heavily on human perceptions and understanding, in this case, of students with autism spectrum disorder (Stake, 2010). By implementing a phenomenological approach, this study explored faculty members' lived experiences, which then informed their understanding and perceptions of students with autism spectrum disorder (Neubauer, et al, 2019; Wilson, 2015). Although the setting for this

research took place at a very large university with over 2,000 faculty members, employing a small-sample, quantitative approach, was indeed purposeful. The hope was that the small sample size would allow for richer accounts of lived experiences that were interpretive, experimental, situational, and personalistic (Stake, 2010).

This study highlights the positive ways faculty voices, changes in pedagogy, and shared experiences can shape the academic success of students on the autism spectrum. Furthermore, this study revealed a gradual change in campus culture, faculty perceptions, and collaborative efforts that promote individualized education for all students. My hope is that these findings will contribute to an enhanced understanding of the intersectionality between disability and higher education. These recommendations are possible if faculty members are encouraged to recognize the important role they play in the academic success and wellness of students with autism spectrum disorder in their classrooms.

Appendices

Appendix A: Theoretical Frameworks

Social Constructivist Theory

(Creswell, 2012; Crotty, 2012; Gallagher et al., 2013; McRobbie & Tobin, 1997

Disability as a Social Construct

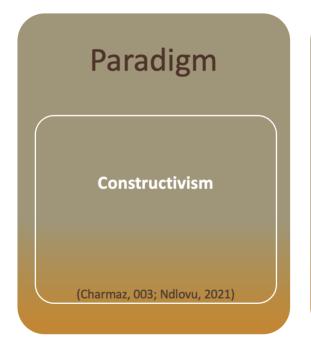
(Creswell, 2012; Crotty, 2012; Gallagher et al., 2013)

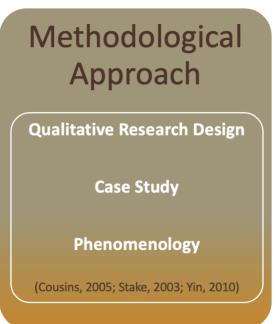
Critical Disability Theory

(Reaume, 2014; Shildrick, 2012)

Appendix B: Research Design and Methodology

Method of Sources of Data 100 instructors receive Purposeful Large, Public, 4-Year, Online Survey Instrument **Coding Interview Data** Flagship University in (Open, Axial, Selective) email containing survey Homogeneous Sampling **Central Texas** Structured Interview 30 completed surveys Triangulation Email sent to instructors who teach first-year, Six to Eight Interview introductory courses Participants (per Course Schedule) (Campbell, et al., 2020; Etikan, et al., 2016; Rai & (Flick, 2007; Glaser & Strauss, (Baker et al., 2008; Houck 2017: Williams & Moser, et al., 1992) Thapa, 2015) 2019)





Appendix C: Recruitment Email and Participant Recruitment Flow Chart

Dear UT Austin Faculty Member,

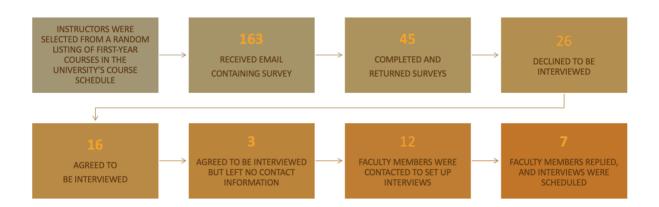
My name is Patty Moran Micks, and I am an Ed.D. candidate in the Higher Education Leadership & Policy program in the College of Education at the University of Texas at Austin. I also serve as an Assistant Dean at UT Austin, where I oversee students' transition from high school to college.

My doctoral research explores faculty members' perceptions of students with autism spectrum disorder (ASD) at large four-year universities. I am reaching out with the hope that you might take a moment to fill out a brief 10 question survey regarding your experiences teaching first-year and/or introductory-level students. No prior knowledge of ASD is required to participate. You do not need to provide your name on the survey, however there will be an opportunity to provide your contact information at the end of the survey if you would be interested in participating in a follow-up discussion.

The link for the survey can be found here: https://utexas.qualtrics.com/jfe/form/SV_5z36Pea8BGmkGEe

Thank you for your consideration and please let me know if you have any questions or would like additional information. All information provided in these surveys will remain anonymous and confidential, and any identifying information you provide will be de-identified during the research process. This research has been approved by the IRB as well as my faculty committee at UT Austin.

All the best,
Patty Moran Micks, M.Ed.
Doctoral Candidate – Higher Education Leadership & Policy



Appendix D: Introductory Survey

_	
TEX The University of 7	AS Texas at Austin
	of study most closely relates to your expertise, scholarship, and undergraduate
	Architecture
	Business
	Communication
	Education
	Engineering
	Fine Arts
	Liberal Arts/Humanities/Social Sciences
	Natural Sciences
	Nursing
	Professional Schools (Law, Pharmacy, Medicine)
	Social Work
	Other

*



Q2 What undergraduate course(s) do you teach on a regular basis at this institution? (Course Abbreviation/Course Number and Course Title)

O Course #1			
O Course #2 (if applicable)			
O Course #3 (if applicable)			
O Course #4 (if applicable)			
Q3 How many years have you taught in higher education? br>			
○ 0-3			
O 3-7			
O 7-10			
O 10+			
Q4 How many years have you taught at this institution?<\pr			
O 0-3			
O 3-7			
O 7-10			
O 10+			



Q5 What is your current rank?

▼ Assistant Professor of Instruction ... Other

Assistant Professor of Instruction
Associate Professor of Instruction
Professor of Instruction
Assistant Professor of Practice
Associate Professor of Practice
Professor of Practice
Assistant Professor of Research
Associate Professor of Research
Professor of Research
Professor of Research
Assistant Professor (tenure track)
Associate Professor (tenure track)
Professor (tenure track)
Emeritus
Other



spectrum?
O Extremely familiar
O Very familiar
O Moderately familiar
O Slightly familiar
O Not familiar at all
Q7 How knowledgeable are you about typical challenges for people on the autism spectrum?
C Extremely knowledgeable
O Very knowledgeable
O Moderately knowledgeable
○ Slightly knowledgeable
O Not knowledgeable at all
Q8 Have you, to your knowledge, taught students on the autism spectrum at this institution?
○ Yes
O Maybe
○ No



End of Block: Faculty Perceptions of Students with Autism Spectrum Disorder

Appendix E: Email Requests for Interview

Hi Dr I	[name	removed)	L
mı Dr.	ıname	removed	r

I hope this email finds you well. Thank you for completing the short survey I sent regarding my treatise on faculty perceptions of students with Autism Spectrum Disorder. You indicated in the survey that you would be willing to be interviewed for my independent research project. I'm checking in to see if you are still interested, and if so, to set up a time to speak on Zoom over the next few weeks.

Please let me know-I look forward to hearing from you soon!

All the best,
Patty Moran Micks
Doctoral Candidate
Higher Education Leadership & Policy

Hi [name removed]-

I look forward to seeing you at 11:00 on Wednesday via Zoom. https://utexas.zoom.us/j/92694260169

I've also attached the IRB approval for my study for your information. Thanks again!

Patty

MicksIRBApprovalSTUDY00003457.pdf (71K)

×

Appendix F: Semi-Structured Interview Questions

Interview Guide

- Introduction/Purpose of Study
- Verbal consent to be recorded and transcripts taken
- · Confirmation of
 - Field of study
 - o courses taught
 - o years of teaching in higher education
 - years of teaching at this institution
- 1. What is your general knowledge of autism spectrum disorder?
 - a. Did you acquire this knowledge through
 - i. Formal training
 - ii. Personal experience(s)
 - b. Did you possess that knowledge prior to having a student with ASD in your class?
- 2. Please describe your experiences with
 - a. persons on the autism spectrum
 - b. students on the autism spectrum
- 3. When you worked with students with ASD (disclosed) in your course(s)
 - a. Did they provide an accommodation letter?
 - b. What type(s) of accommodations were they requesting?
 - c. At what time during the semester did they provide accommodation letter/ask for accommodations
 - i. At the beginning of semester
 - ii. At the Middle to end of semester
- 4. Were there challenges
 - a. in implementing the recommended accommodations?
 - i. Class size; time constraints; job demands
 - b. that were not addressed in accommodation letter (such as social or developmental challenges)?
 - i. How did you address these challenges (if you did)?
- 5. Have you worked with students who did not have a verified disability of any type that asked for testing or classroom accommodations?
 - a. If so, how did you handle the request?
 - b. Was there a difference in your response if the request happened at the
 - i. Beginning of semester
 - ii. Middle to end of semester
- 6. In relation to acquiring more information on resources such as education and training for working with students on the autism spectrum in higher education...
 - a. What resources are you already aware of at this institution?
 - b. How would education and training on this topic be best presented to faculty?

Appendix G: Codes Assigned for Phenomenological Data Analysis

Code	Number of Excerpts Used in Initial Coding (49 total)
ACCOMMODATION	18
CHALLENGE	5
EMPATHY	8
IN-TIME	2
PERCEPTION	3
PERSONAL	17
PROFESSIONAL	6
SUCCESS	1
SYMPATHY	2
TRAINING	10

Appendix H: IRB Approval Letter



Office of Research Support & Compliance Institutional Review Board P.O. Box 7426, Campus Code A3200 Austin, Texas 7873; T: 523-234-543 F: 523-474-8873 Email: Irb@austin.utexas.edu www.research.utexas.edu/ors

EXEMPT DETERMINATION

October 24, 2022

FWA # 00002030

Patricia Micks 2304 WHITIS AVE AUSTIN, TX 78712

+1 512 471 4421 moranp@eid.utexas.edu

Dear Patricia Micks:

On 10/24/2022, the IRB reviewed the following submission:

Type of Review:	Initial Study
Special Determinations:	Students / Employees
Title:	Faculty Members' Perceptions of Undergraduate Students with Autism Spectrum Disorder at a Four- Year Public University
Investigator:	Patricia Micks
IRB ID:	STUDY00003457
Funding:	None
Grant ID:	None
IND, IDE, or HDE:	None
Approval Date:	10/24/2022
Documents Reviewed:	Consent, Category: Consent Form; Email, Category: Recruitment Materials; Interview, Category: Other; IRB form, Category: IRB Protocol; Survey, Category: Other;

The IRB determined that this protocol meets the criteria for exemption from IRB review under 45 CFR 46.104 (2)(ii) Tests, surveys, interviews, or observation (low risk).

Page 1 of 2

Template Revision: January 6, 2020



Office of Research Support & Compliance Institutional Review Board P.O. Box 74-36, Campus Code A3200 Austin, Texas 787-13 T: 522-523-5543 F: 522-5472-8873 Email: irb@austin.utexas.edu www.research.utexas.edu/ors

In conducting this protocol, you are required to follow the requirements listed in the Investigator Manual (HRP-103) and UT IRB Policies and Procedures (HRP-UT1000), which can be found by navigating to the IRB Library, General tab, within UTRMS-IRB.

Ongoing IRB review and approval by this organization is not required. This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. Modifications that involve a change in PI, increase risk, or otherwise affect the exempt category or the criteria for exempt determination must be submitted as a modification. Investigators are strongly encouraged to contact the IRB staff to describe any changes prior to submitting an amendment/modification.

If you have any questions, contact the RSC by phone at 512 -232-1543 or via e-mail at irb@austin.utexas.edu.

Sincerely,

Institutional Review Board

University of Texas at Austin

cc:

Patricia Micks (PI), Patricia Micks (Primary Contact)

Glossary

Autism Spectrum Disorder: Autism spectrum disorder (ASD) is a neurodevelopmental disability that can cause significant social, communication and behavioral challenges. While no visible traits set them apart from other people, persons with autism spectrum disorder may communicate, interact, behave, and learn in ways that are different from others. The learning, thinking, and problem-solving abilities can range from gifted to severely challenged. Some people with autism spectrum disorder need a lot of help in their daily lives; others need less (CDC, 2020).

Autismi Spectrum Disorder Diagnosis: Refers to several conditions that used to be diagnosed separately: autistic disorder, pervasive developmental disorder not otherwise specified (PDD-NOS), and Asperger syndrome. These conditions are now all called autism spectrum disorder (CDC, 2020).

Developmental Disabilities: A group of conditions due to an impairment in physical, learning, language, or behavior areas. These conditions begin during the developmental period, may impact day-to-day functioning, and usually last throughout a person's lifetime (CDC, 2020).

Disability: Lack of adequate power, strength, or physical or mental ability; incapacity; a physical or mental handicap, especially one that prevents a person from living a full, normal life or from holding a gainful job; anything that disables or puts one at a disadvantage; the state or condition of being disabled; legal incapacity; legal disqualification (Dictionary.com, n.d.).

Empathy: Empathy is the ability to recognize, understand, and share the thoughts and feelings of another person, animal, or fictional character. Developing empathy is crucial for establishing relationships and behaving compassionately. It involves experiencing another person's point of view, rather than just one's own, and enables prosocial or helping behaviors that come from within, rather than being forced (Sussex Publishers, 2023).

Individual with a Disability: Defined by the ADA as a person who has a physical or mental impairment that substantially limits one or more major life activities, a person who has a history or record of such an impairment, or a person who is perceived by others as having such an impairment (ADA, 1990).

Invisible Disabilities: Invisible disabilities are usually defined as those that don't manifest in ways that are immediately obvious to others. This is a loosely-defined blanket category that may include any number of disabilities, impairments, or medical conditions. This can include chronic pain or fatigue; cognitive or learning disabilities or differences; head or brain injuries; hearing disabilities or impairments; vision disabilities or impairments; and much more (Accessibility.com, 2021).

Neurodiversity: Neurodiversity describes the idea that people experience and interact with the world around them in many different ways; there is no one "right" way of thinking, learning, and behaving, and differences are not viewed as deficits.

The word neurodiversity refers to the diversity of all people, but it is often used in the context of autism spectrum disorder (ASD), as well as other neurological or developmental conditions such as ADHD or learning disabilities. (Baumer, 2021).

Universal Design for Learning: Universal Design for Learning (UDL) is a framework to guide the design of learning environments that are accessible and challenging for all. Ultimately, the goal of UDL is to support learners to become "expert learners" who are, each in their own way, purposeful and motivated, resourceful and knowledgeable, and strategic and goal driven. UDL aims to change the design of the environment rather than to change the learner. When environments are intentionally designed to reduce barriers, all learners can engage in rigorous, meaningful learning (The UDL Guidelines, 2022).

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