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ACCOMMODATIONS AND RESOURCES FOR COLLEGE STUDENTS WITH AUTISM
SPECTRUM DISORDER

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TABLE OF CONTENTS

List of Tables	viii
List of Figures	ix
Abstract	x
Chapter 1: Introduction	1
Challenges Faced.....	2
Responsibilities of the IHE.....	6
Resources Available to the IHE	6
Student Role	8
Conclusion.....	10
Chapter 2: Literature Review.....	11
Autism Defined	12
Individuals with Disabilities Education Act 2004.....	13
Higher Education Act 2008.....	14
Literature Review Questions	15
Methodology.....	15
Inclusion and Exclusion Criteria.....	15
Search Procedures	16
Screening for Study Selection.....	16
Coding the Articles	19
Results.....	24
Results of Codes	24
Themes.....	24
Discussion.....	27

Chapter 3: Methodology	33
Accommodations in Higher Education	34
Research Questions	35
Literature Review	35
Methodology.....	37
Research Design.....	38
University Approval.....	38
Setting	39
Participants.....	39
Procedures	40
Interview Protocol.....	41
Data Collection	41
Data Analysis	42
Trustworthiness.....	42
Chapter 4: Findings.....	44
Coding Protocol.....	44
Emerging Themes.....	45
University Information and Prevalence of Students with ASD	46
Documentation Requirements	48
Receiving Accommodations from a Disability Resource Center	49
Report of High- and Low-Frequency Accommodations	51
Difficulties Faced by Students with Autism	54
Moving Forward: Enhancing University Supports	58
Chapter 5: Discussion	61
Guideline Requirements	61

Obtaining a Formal Diagnosis.....	62
Public Versus Private	63
Staffing of Disability Resource Centers	63
Employment Preparedness	64
Limitations.....	65
Implications for Practice.....	67
Implications for Future Research	68
Conclusion.....	69
References.....	71
Appendix.....	75

LIST OF TABLES

Table 1, Inclusion Criteria	1
Table 2, Articles Summary Table	2
Table 3, Summary of Codes: Accommodations Reported by Students	3
Table 4, Summary of Codes: Services Reported by Faculty	4
Table 5, Summary of Codes: What Students Wish They Had	1
Table 6, Summary of Codes: What Students Find Most Helpful	2
Table 7, Summary of Codes: Difficulties	3
Table 8, Summary of Themes: Demographic Information- Director	4
Table 9, Summary of Themes: Demographic Information- University	1
Table 10, Summary of Themes: Registration Information	2
Table 11, Summary of Themes: Accommodations Offered	3

LIST OF FIGURES

Figure 1, Screening Selection Chart	1
Figure 2, Interview Protocol	2
Figure 3, Summary of Themes: Difficulties Surrounding College Students with ASD	3
Figure 4, Summary of Themes: Difficulties Surrounding College Students with ASD	4
Figure 5, Summary of Themes: Difficulties Surrounding College Students with ASD	1
Figure 6, Summary of Themes: Difficulties Surrounding College Students with ASD	2
Figure 7, Summary of Themes: Difficulties Surrounding College Students with ASD	3
Figure 8, Summary of Themes: Difficulties Surrounding College Students with ASD	4

ABSTRACT

The purpose of this paper was to see how universities are accommodating their student population on campus that are diagnoses with autism spectrum disorder (ASD) through interviews with directors of the university disability resource center (DRC). First, a systematic literature review was conducted with the current literature covering my topic. That literature review was able to provide a fairly comprehensive list of high and low frequency accommodations and some of the described difficulties surrounding college students with autism. These accommodations are implemented in class and housing. I also sought to discover what these participants thought to be some of the more significant barriers and difficulties that college students with ASD navigate on a college campus with the academic and social rigors. Using a qualitative study design, I collected data using 45 minute interviews with participants over an online video conferencing platform (i.e., Zoom) where I had semi-structured questions prepared. With a general qualitative analysis I was able to use the interview transcripts to use deductive and inductive coding to create all codes and identify key themes. Those themes are detailed in the results section of Chapter 4. Through the coding process, implications for the practice of participants were identified, with an emphasis on university guideline requirements, students obtaining a formal ASD diagnosis, public versus private universities, and employment preparedness.

CHAPTER 1:

Introduction

Institutes of Higher Education (IHE) are required by the Americans with Disability Act (ADA) and the Higher Education Act (HEA) to provide accommodations for college students with any registered disability including autism spectrum disorders (ASD). However, the law provides no clear guidance on how institutions of higher education (IHE) are to support their population of students with ASD in these postsecondary education settings. The general nature of federal law allows for each IHE to determine their own procedures for implementation. Ultimately, the individual IHE determines the supports for students with disabilities often through accommodations or services. The management of these supports typically falls to disability resource centers (DRC). Allowable supports may vary across IHE due to nondescript language in the legislation (Americans with Disabilities Act, 1990). While this flexibility presents the opportunity for each university to employ supports to meet the unique and individualized needs of the students with ASD, there is evidence that not all necessary supports for individual students are always a provided option (Accardo, 2019).

For the majority of universities or IHE, the allowable or offered accommodations are primarily academic, which apply only in the classroom (Van Hees et al., 2014). These accommodations include extended time for exams and quizzes, taking those exams and quizzes in a reduced distraction environment, notes from a peer, professor notes, or flexibility in attendance. Students receive these accommodations by presenting documentation for a diagnosis of a disability to the disability service center and getting enrolled through their department to receive accommodations on campus (Bolourian et al., 2018).

While helpful, academics are not the only aspect of navigating a university setting that provides unique challenges to students with ASD. The Center for Disease Control (CDC; 2019) classifies ASD as a developmental disorder and cites hallmark characteristics such as difficulties in communication skills, social interactions, and behavioral regulation. Those difficulties and challenges manifest both interpersonally and intrapersonally, which impact the holistic college experience by potentially limiting equal access to all the educational experiences that are offered by IHE (LeGary, 2017). These state and federally funded IHE have the legal requirement to provide accommodations for students with any disability; however, the resources for universities to provide the most equitable environment and campus culture to ensure students with ASD feel included are often not made available. When it comes to students with ASD on campus receiving accommodations, finding ways to get included in school sponsored events and navigating the transition from high school to college largely depend on self-advocacy (Bolourian et al., 2018). Determining appropriate accommodations requires five key elements: (a) addressing challenges, (b) faculty awareness, (c) responsibilities of IHEs, (d) resources within IHEs, and (e) students' role.

Challenges Faced

Accommodations provided by the DRC are not always sufficient to meet the unique needs for the students with ASD; however, when accommodations are tailored to meet the unique need of the individual student, it can change the outcome of their academic career in a positive way (Accardo, 2018). Most students with ASD are academically capable of completing the degree plan for their major, but the extracurricular requirements and social challenges are what often lower retention and graduation rates (Bolourian et al., 2018; Cox et al., 2017; LeGary, 2017; Sarrett, 2017; Van et al., 2014). Sarrett (2017) found that current literature shows that

college students with ASD have challenges surrounding expressing their sense of identity and the stigma that accompanies their diagnosis on a college campus with peers and faculty. The transition from high school to higher education is more challenging for students with ASD than it is for their peers that do not have a diagnosis of a disability (Accardo, 2018). There are two sets of skills that students with ASD tend to struggle with when compared to their typical peers: interpersonal communication skills and daily living skills.

Interpersonal Communication Skills

Communicating with other humans through oral and digital conversation is important for any area of life, but within IHE, it is a mandatory component of academic and overall success (Accardo, 2019). A large portion of the holistic college experience is spent in the classroom, taking classes, taking exams, working with peers on projects, and presenting your findings to the class. All aspects of those classroom components require some degree of communication (e.g., communicating one's thoughts and understanding). With communication deficits being a defining characteristic of individuals diagnosed with ASD, these conversational exchanges and engagements may be more difficult for students with ASD than it is with their neurotypical peers (CDC, 2019). When communication with professors or peers during a group project is lacking it can manifest into a lack of attendance and trigger avoidant behavior (LeGary, 2017). Behaviors negatively impact grades and stunt the advanced development of collaboration skills necessary for employment post-graduation.

Finding community in higher education can be challenging for any student. Coupled with communication challenges, it can become easy for college students with ASD to feel isolated and struggle to find a community (Bolourian et al., 2018). Students entering college come from a setting where they typically have been engaging with the same group of peers for many years.

Upon arrival at college, they are unsure of how their social interactions will be impacted, how to best organize thoughts, and complete general tasks (Hadley, 2011). Students will have to generalize the communication and speech skills that they have acquired through their K-12 years to be applicable to the communication and conversational requirements of navigating higher education.

Campus Residence and Daily Life Skills

Accommodations for students who elect, or are required to, live in a campus residential environment are not always offered by providing the type of space needed for decompression, adequate sleep, and maintaining daily routine. Currently, there is a gap in the literature covering what sorts of extracurricular accommodations are provided with students with ASD on a college campus (Hill et al., 2020; LeGary, 2017). For example, traditional students living on campus almost always live in a dormitory with at least one other roommate. Navigating roommates in college, whether assigned by the university or chosen by the student, can be universally difficult and come with a unique set of challenges and adjustments.

Housing accommodations are useful for more than simply having an individually assigned space, but rather giving the student a space to focus on and maintain routine within and beyond the walls of their own room. Maintaining one's routine for self-care and everyday life functions is vital to individuals with ASD (Mile et al., 2018). Creating a neurodiverse space to allow for an ideal sensory and decompressing environment allows college students with ASD to keep up with the social demands of IHE (Sarrett, 2017). Students able to maintain their mental health yield more positive academic outcomes.

Faculty Awareness

Becoming an inclusive community takes work at all levels, from the top administration and Board of Trustees to faculty and staff, and other peer students (Hill et al., 2020). Registering and having access to academic and in class accommodations may not be enough to ensure that a student with ASD is successful in their coursework. The faculty are also responsible for creating the educational environment that provides those accommodations for each of their specific students. If faculty are unable to accept and implement accommodations for these students (e.g., using videos without captions, refusing to accept work completed with extra time, using written materials inaccessible to screen readers), not only are they not in compliance with the legal requirements of a federally funded school to provide equal access, but they create another hurdle for students with ASD that are in the pursuit of their degree (Hill et al., 2020).

When students with ASD transition from high school with long-standing supports, services, and familiarity provided under IDEA to college with new and likely different supports and very few, if any, services, there are often concerns about adapting to a completely new environment (Bolourian et al., 2018). Leaving the security and consistency of their caregivers can be a challenging adjustment for any freshman. Students with ASD no longer have caregivers continually checking to ensure that the students with ASD are receiving necessary supports. Instead, the DRC within the IHE determines appropriate accommodations based on conversations between the students and designated staff. Once accommodations are determined, staff in IHE have no requirements to check in with any student, they simply must ensure accommodations are provided. It is incumbent on students to determine whether their accommodations are meeting their unique needs or not—leaving students who fail to speak up and advocate for themselves left to fall through the proverbial cracks (Sarrett, 2017).

Responsibilities of the IHE

Section 504 of the Rehabilitation Act (1974), the Americans with Disability Act (1990), the Americans with Disability Amendment Act (2008), and the Higher Education Opportunity Act (2008) are all pieces of legislation that became law for the purpose of creating equal access to education for students with disabilities in a higher education setting. IHE that receive state funding are responsible for making sure that members of their student body diagnosed with a disability can receive accommodations on campus by submitting documentation to the university DRC (Hill et al., 2020; Miele et al., 2018; Van Hees et al., 2014).

DRC are on each campus serving as the hub for students to apply for and document accommodations, but another responsibility of each IHE is to staff the center with an expert in disability services to ensure compliance with the office's legal requirements. Here at these centers, students will also find support staff to help them advocate for their needs as they navigate their educational experience in their IHE. These centers serve as a safe place for students to express themselves and be comfortably free of judgment when asking for support or assistance (Hadley, 2011).

Resources Available to the IHE

Apart from having a resource center available to provide accommodations on campus for students, there is not a group of resources every IHE uses to develop systemic support for their population of students with ASD. According to a search of present literature, there is no clear set of guidelines on how IHE are to best provide accommodations and serve their student population with ASD. Clearer guidance would be a helpful tool in regulating the processes of the disability resource centers as well as the accommodations that are provided for students with ASD and disseminate practice-based research regarding students with ASD in higher education and how to

best support them. Without consistent accommodation practices, it is difficult for high school IEP teams (i.e., guidance counselors, guardians, special educators, and administrators) to be prepared for the transition from IDEA accommodations, such as an IEP, to accommodations in higher education. Clear and consistent guidelines surrounding college accommodations would allow incoming students to prepare for the process.

Developing Systemic Supports

If faculty could go through training to get a basic understanding of ASD, how it presents, and how accommodations provide the necessary assistance to create equal access to education, they would be more equipped to refer students to the disability resource center that may not already be registered (Miele et al., 2018). However, getting students to self-identify and register is only the first step in the process. The subsequent steps necessitate that IHEs need more regimented guidelines or the development of a flexible framework to allow for more consistent processes across institutions. The guidelines or framework could address the types of accommodations students are allowed to receive and how IHE ensures those accommodations are implemented. As an example, IHE could supply (a) annual follow-ups to meet with students for the purpose of assessing where they are in their programs, (b) how the students' accommodations are serving them, and (c) how the disability resource centers could help students them toward further inclusion within the campus culture.

Universal Design for Learning

A suggested strategy to improve on-campus culture would be to implement Universal Design for Learning (UDL) into the educational delivery of a cross campus instruction approach. UDL is a theoretical framework for improving learning outcomes by including multiple ways that students engage, perceive, and express course content (i.e., the three guiding principles of

UDL; CAST, 2022). By its nature, UDL emphasizes accessibility and flexibility of the instruction, which could lead to better educational outcomes for students of multiple disability diagnoses, not restricted to ASD (Hadley, 2011). Presenting academic content through a variety of methods and different perspectives is a way to reach more diverse learners in the classroom, which, in turn, includes students with ASD.

Student Role

According to Hadley (2011), unlike the Child Find provision under the Individuals with Disabilities Education Act (IDEA) in the kindergarten-12th grade system (20 U.S. Code § 1414) where schools are responsible for locating and identifying students with disabilities, it is the responsibility of the student to initiate the registration for accommodations and support services in IHE. The IHE does not seek out students, automatically know which students have a diagnosis of a disability, or which students need to receive accommodations. Therefore, students wanting to receive accommodations for their disability of ASD will need to initiate contact with the university's disability service center, which requires a skill set including self-advocacy.

Self-Advocacy

Students with ASD who wish to receive any sort of accommodation, whether academic or housing-related, need to submit documentation of their disability to the campus's disability resource center (Sarrett, 2017). This process will allow them access to support similar to the level of academic support received in secondary education. Accommodations do not directly transfer from K-12 schools to universities upon graduation., Therefore, the only way for students to receive accommodations at universities is to seek them out themselves or with the help of a parent/guardian. The process to receive accommodations differs across educational settings because students in IHE are considered legal adults and act on their own behalf. Parents and

guardians may only access academic or university information after their children (i.e., the students) sign a release, which includes accommodations. This change from one system to the other has both positive and negative elements. As a positive, the independence required of students encourages students to advocate for themselves and encourages them to learn to take that next step while still being supported by their IEP team, but not fully relying on parent or guardian assistance. As a negative, some students have not learned self-advocacy yet; therefore, these students may have difficulty engaging effectively enough with staff to receive accommodations or other necessary campus support for their disability in the first place.

Maintain Open Communication

Open communication is an integral aspect of the students' role in obtaining accommodations in IHE. University staff cannot predict or fully anticipate the unique needs of each individual student with ASD. It is very important for these students to have learned how to advocate for themselves on their needs and wants. Alternatively, if they are unable to advocate for themselves effectively in an academic setting, it is imperative for these students to establish a rapport with the staff at the disability resource centers, as they can help advocate on behalf of the students (Miele et al., 2018). Without open communication with both course instructors and the staff at the disability resource centers, these students will be limited to accommodations that were originally determined upon entry to the university for initial coursework. As coursework changes, accommodations may also need to change. Sometimes the original accommodations will be sufficient and adequately meet the students' needs in navigating their time at that institution. However, there may be instances when students determine they need accommodations different from those originally identified. If they do not maintain a certain level

of dialogue with the support staff, they will not be able to adequately meet their disability's needs and could see a negative academic result.

Conclusion

Students with ASD may face more unique social and communicative challenges than their peers without ASD when adjusting to higher education (Hadley, 2011; Hill et al., 2020; Sarrett, 2017). The challenges originating from the defining characteristics of ASD including social and communication skills generalize across every aspect of higher education. For example, navigating friendships and roommates, completing group projects, conversing with professors, and advocating for their desires and needs may be a challenge. To alleviate some of these challenges and ease the transition from high school to IHE, Section 504, ADA, ADAA, and HEA are in place to hold the IHE accountable for ensuring that students with disabilities are offered appropriate accommodations to ensure equal access to education at their institution.

It is not sufficient to solely document accommodations on campus. IHE should provide training opportunities specifically on ASD to faculty and other students. This training could focus on how to create an inclusive campus with a culture around disability acceptance. Encouraging a more diverse student and alumni population benefits the entire learning establishment while preparing all students for a future workforce that is fully inclusive. (Hill et al., 2020).

CHAPTER 2:

Literature Review

When it comes to supporting the development of social and daily living skills of individuals with autism spectrum disorder (ASD) in a post-secondary educational environment, it is not challenging to understand the importance of those skilled areas. The number of college students with ASD has been on a steady rise with each passing academic year (Accardo, 2019b). Due to this rise in college students with ASD, there is a significant need for the universities to provide specific support to promote a successful college experience for these students (Accardo, 2019b; Vanet al., 2014). Universities are commonly providing resources for students with disabilities; however, those resources do not always meet the unique needs for the students with ASD. As stated previously, the resources that universities provide to their students with disabilities center primarily on academics (i.e., class accommodations, testing accommodations, and academic planning), but a hallmark trait for students with ASD is a deficit in socialization.

The Americans with Disabilities Act (ADA, 1990) is a civil rights law codifying the prevention of individuals with disabilities from being discriminated against for having a disability. ADA specifically stipulates that postsecondary institutions are responsible for providing necessary accommodations when a student discloses a disability. With so little evidence to support the understanding of the preferences and social needs of college students with ASD, it is difficult for a university to properly support this population. To address the literature available to researchers and practitioners, I sought to create a comprehensive systematic literature review. My purpose for reviewing current literature regarding college students diagnosed with ASD was to evaluate three aspects of accommodations: (a) what

accommodations they have access to, (b) what accommodations they prefer to use or find helpful, and (c) what accommodation or support do they desire access.

Autism Defined

Autism Spectrum Disorder (ASD) is defined by the Center for Disease Control (CDC, 2019) as a developmental disability that can cause significant social, communication, and behavioral challenges. Currently, there is an increasing statistic of 1 in 44 children being diagnosed with ASD (Data & Statistics, 2019). Through programs such as HeadStart and other state or federal early intervention programs, there is an emphasis on intervening with students diagnosed with ASD at a young age. Presently, the literature on students with ASD primarily focuses on students in elementary through high school. In 2019, the federal government signed a \$1.8 billion bill to fund autism research called Autism Collaboration, Accountability, Research, Education and Support Act (CARES; *Autism Cares Act*, 2019). This bill targets the overwhelming issue of ‘aging out’ of the services provided to individuals with autism spectrum disorder (ASD) after they are no longer in a public-school setting. A transition of accommodations from K-12 to higher education creates an unfamiliar environment, as the IDEA accommodations expire upon graduation. Once they have entered higher education, students are required to begin the process of accommodation with their university or college and could face those accommodations not aligning to their K-12 academic accommodations.

Upon enrollment in a college or university setting, students with ASD might not be allowed all the same accommodations and supports that they had in the K-12 system requiring them to self-advocate for themselves (i.e., transition from protection under IDEA to protections under HEA). Additionally, a traditional college experience does not consist solely of academic activities. Students are expected to join social clubs, engage successfully with their peers and

professors, navigate independent living and self-care, and, if applicable, advocate for themselves in terms of accommodation based on disability. One may note that these tasks often present challenges for traditional, degree-seeking students. When looking at the difficulties that accompany a diagnosis of ASD, the transition for students with ASD to higher education may be particularly challenging.

Individuals with Disabilities Education Act 2004

Individuals with Disabilities Education Act (IDEA) of 2004 is a law guaranteeing children with disabilities have access to a free appropriate public education (FAPE) in the United States, ensuring special education services and general classroom accommodations be made available to them. These are put into place for creating equal access to education for all students. This law and its protections are only available to students from kindergarten through graduation, or age 21. IDEA ensures that students receiving special education services have a plan tailored to meet their needs, often materialized as a document, called an Individualized Education Program (IEP). The IEP serves as accountability and goal setting for students as they progress through the K-12 system. No later than age 16, a student who receives special education services and has an IEP will begin to develop a Transition Plan, which is embedded into the IEP. The transition planning is a way for students to develop their post-high school graduation plan with the help of their IEP team. This plan is especially important for students because they can begin to learn the processes for entering the workforce, getting into college, or choosing a vocational school.

Once a student is transitioning out of the K-12 system and entering the workforce, vocational school, or higher education, the accommodations guaranteed by IDEA are often no longer available, and these students usually need to find other ways to accommodate themselves. IDEA's website states, "Improving educational results for children with disabilities is an

essential element of the national policy of ensuring equality of opportunity, full participation, independent living, and economic self-sufficiency for individuals with disabilities.” This goal is to prepare students in the domains of education, employment, and independent living, which are key components of a high-quality of life in adulthood. While IDEA aims to prepare students in these domains prior to high school graduation or completion, legislation does exist to provide students in higher education equal access to education and educational materials.

Higher Education Act (2008)

The transition from secondary education, in a private setting or from the public school system, into higher education can highlight significant barriers for students diagnosed with ASD. The Higher Education Act (HEA) was originally written in 1965 and was primarily focused on providing financial assistance for making higher education more accessible to all who desired formal education and enhancing the resources of federally funded higher education institutes. In 2008, the law was amended to allow students with a registered disability to present their IEP to their university and receive academic accommodations. Accommodations in higher education increased the access to curricular and extracurricular activities for students with disabilities. Through high school graduation, students have found success through their unique set of accommodations and supports. The HEA continues what was started by IDEA by requiring universities to accommodate students with a registered disability to provide equal access. However, there is a dearth of research culminating accommodation used by students with ASD in higher education. To preface this study in further exploring what is known about accommodations for students with ASD in IHE, I conducted a literature review to better understand what accommodations university faculty and students report being offered to the

student population with ASD and how those students and faculty believe them to be helpful or discuss what could be adjusted to better support the college students with ASD.

Literature Review Questions

1. What accommodations do students with ASD report receiving from their public universities?
2. What resources do students with ASD report as most helpful?
3. What resources do students with ASD report desiring at a university level for overall university success?
4. What resources do faculty and staff report that students with ASD need to find success on campus?

Methodology

Inclusion and Exclusion Criteria

I developed comprehensive inclusion and exclusion criteria pertaining to each of the three key elements of the research questions: (a) higher education, (b) disabilities, and (c) methodology. Table 1 displays the specific criteria. All searches were filtered to only include peer-reviewed articles published after January 1, 2004. This date ensured the resulting articles were published after the amendments made to the Individuals with Disabilities Education Act (IDEA) in 2004, which requires transition plans to be a part of their Individual Education Program (IEP) by the age of sixteen. The year 2004 is an important date because it sets students with disabilities up to pursue postsecondary options, such as the following: employment, higher education, vocational school, technical school, or skills toward independent living.

Search Procedures

I conducted the search in three consecutive steps: (a) inputting search terms in online databases, (b) reviewing citations for all retained articles (i.e., ancestral search), and (c) reviewing the works citing all retained articles (i.e., forward search). In the first step, I developed search terms based on the inclusion criteria categories and consulted with a library specialist to compare my terms with the databases' keywords and identifiers. I used my search terms in two online databases: ERIC/EBSCOhost and ProQuest. I chose these databases because of their inclusion of educational journals, specifically journals that are content heavy in the disability category of Autism Spectrum Disorder (e.g., Journal of Autism and Developmental Disabilities, Journal of Postsecondary Education and Disability).

Search Terms

I used the following search terms for this review: (“academic support” OR “resource” OR “academic supports” OR “resources” OR “student need” OR “student needs” OR “support”) AND (“autis*” OR “pervasive developmental disorder” OR “asperger syndrome”) AND (“colleges” OR “postsecondary education” OR “higher education”). Results from both databases included a total of 3,605 full text articles—167 in ERIC/EBSCOhost and 3,438 in ProQuest.

Screening for Study Selection

Upon finalizing the search terms and locating all the results from said search, I was left with 3,533 articles. Starting with a title and abstract search and ending with an ancestral search, I retained 10 included articles that met the established analysis criteria (see Figure 1).

Title and Abstract Search

First, I reviewed the title and abstracts of each of the 3,533 articles to indicate the articles that (a) could readily be excluded from this review and (b) articles that could not be excluded from this review (i.e., articles retained for full-text review). Using my inclusion and exclusion

criteria, I determined if the article met my defined criteria based on the information included in the title and abstract. If the title and abstract did not yield any information that met my exclusion criteria and addressed my inclusion criteria, I retained the article for a full-text review. If the title or abstract identified any of the exclusion criteria, it was excluded from this review. In this step, 3,469 articles were excluded, and 63 articles were retained for a full-text review.

Full-Text Search

Next, I reviewed the full text of each of the 63 articles using my inclusion and exclusion criteria. Using the information of title, author, and database, the articles included in the full-text search were downloaded from the original database (i.e. ERIC/EBSCOhost or ProQuest). Because “full text” was not a requirement in the original search, not all articles were readily available on the databases. The two unloadable articles were found through the library specialist. I read through articles to confirm it met each inclusion criterion. When an inclusion criterion could not be confirmed or the study met any of the exclusion criteria, it was excluded from the review. At this step, I excluded 53 articles and included 10 articles.

Ancestral Search

Using the 10 articles included in this review, I completed a forward and backward search. For the forward search, I used Google Scholar to identify all articles citing the included articles and reviewed each for inclusion in this review. For the backward search, I checked the references for each article included. Using the inclusion criteria for each reference article, I identified no additional articles to be included in this review.

Inter-Rater Reliability

A second screener, a doctoral student in special education, conducted inter-rater reliability (IRR) on 25% of articles ($n = 834$) in the screening process. I randomly selected 25%

of the articles from the original search results by an online number generator, leaving a total number of 834 for the second screener to assess.

To train the second screener, a formal training session through an online video conferencing program was conducted using 10 articles—none of which were included in the 25% provided for final IRR. We discussed the research questions, the point of the research, and the inclusion and exclusion criteria. With the 10 articles, we were able to provide examples and nonexamples of articles that would and would not be included in the next round of screening. The second screener reviewed the 834 articles in two sets to check reliability and discuss any discrepancies. In the first set, 100 articles were assigned to the screener for review. Upon completion of the review, the second screener returned their results for comparison to ensure at least 90% agreement had been met. After reaching 93% agreement, the remaining 734 were sent to the reviewer. IRR was calculated by dividing the total number of agreements by the total number of agreements plus disagreements and multiplying by 100, leaving a total IRR of 93% agreement.

A full-text review process was also completed with 25% of the 63 articles retained for this next stage of screening. Twenty-four articles were sent to the same reviewer after an additional training session through an online video conferencing program with two articles not included in the set. The full article was sent to the reviewer where the screener could note their determination of the article being included or excluded in the final selection of articles. IRR was calculated by dividing the total number of agreements by the total number of agreements plus disagreements and multiplying by 100, leaving a total IRR of 95% agreement.

Included Articles

At the end of this search, 10 articles were retained for analysis in the present literature review (see Table 2). The articles included in this literature review had participants who were college students with ASD or faculty of the academic resource centers. All student participants are academically traditional and degree-seeking. The universities that are represented in the articles include four-year universities, excluding junior, community, or other two-year colleges.

Coding the Articles

To code the 10 included articles, codes were developed by assessing my research questions and forming them into categories of information that was present in articles. Codes were duplicated to represent information as presented from a student perspective and from a faculty or staff perspective (i.e., the participants for inclusion; see Tables 3-7). Methodological identifiers were coded, such as the participants and the article's methodology. I coded the accommodations that students were receiving, as reported by both faculty or staff and by the college students with ASD.

Coding Process

All included articles were downloaded and saved for later dissemination and coding. I created a codebook including all codes in evaluation of each article. When students were participants, the staff specific codes were not utilized. When staff were participants, the student specific codes were not utilized. Nine articles included students as the participants and one article included staff as the participants. Training and official interobserver agreement (IOA) on articles was independently coded and discussed between each article for both training and official IOA.

Services Being Provided as Reported by Students. For studies that included students as participants, services were noted as a type of accommodation. For studies that did not include

students as participants, this code was not utilized (i.e., marked as not applicable or N/A). Services were broken down into four categories: (a) academic, (b) housing, (c) 1:1, and (d) other. Academic accommodation included extended time for exams and quizzes, quiet testing area for exams and quizzes, colored paper, reader, or scribe. Housing accommodations were limited to general housing accommodations such as: single/private residence, schedule posted in hall, and quiet hours. One-on-one (1:1) accommodations ranged from tutoring, faculty mentorship, peer mentorship, academic coaching, weekly check-ins with academic resource centers, counseling, scheduled staff support, and individual programs for students with ASD. Other accommodations were used to include accommodations or services that did not fall into the other three accommodation categories and included self-advocacy training, social skills group support, transition programs, priority registration, and summer programs. See Table 3 for each accommodation inclusion within each of the included articles.

Services Desired as Reported by Students. For studies that included students as participants, services were noted as academic or other. For studies that did not include students as participants, this code was not utilized (i.e., marked as not applicable or N/A). Services were broken down into two categories: (a) academic or (b) other. Academic accommodations included professors needing professional development on how to create an inclusive classroom for their students, note-takers, written directions for assignments, flexible classroom attendance, additional courses specific to disabilities, and alternate assignments. Other accommodations included a service animal, university sponsored support programs for their ASD population, sensory accommodations, better awareness from staff on disability, neurodiverse spaces on campus, reduced course load, a more “autism friendly” environment, career counseling, interpersonal instruction for faculty, disability inclusion clubs on campus,

mental health supports, and social group supports. See Table 5 for each accommodation inclusion within each of the included articles.

What Services Were Most Helpful as Reported by Students. For studies that included what students reported as most helpful. This code was solely for studies that included students as the participants. Accommodations that were described in the included articles as most helpful to students with ASD included extended time for exams and quizzes, priority registration, copy of professor lecture notes, academic coaching, tutoring, transition program, university writing center, individual instruction from faculty, schedules, and social skills supports. See Table 6 to see inclusion of this code per each included article.

Services Being Provided as Reported by Faculty. For studies that included faculty as participants, services were noted as a type of accommodation. Services were broken down into four categories: (a) academic, (b) housing, (c) 1:1, and (d) other. Academic accommodation included extended time for exams and quizzes, quiet testing area for exams and quizzes, colored paper, reader, or scribe. Housing accommodations were limited to general housing accommodations such as: single/private residence, schedule posted in hall, and quiet hours. 1:1 accommodations ranged from tutoring, faculty mentorship, peer mentorship, academic coaching, weekly check-ins with academic resource centers, counseling, scheduled staff support, and individual programs for students with ASD. Other accommodations were used to include accommodations or services that could not be categorized as one of the other three accommodation categories and included self-advocacy training, social skills group support, transition programs, priority registration, and summer programs. See Table 4 for each accommodation inclusion within each of the included articles.

Services Desired as Reported by Faculty. For studies that included faculty as participants, services were noted as academic or other. Services were broken down into two categories: (a) academic or (b) other. Academic accommodations included professors needing professional development on how to create an inclusive classroom for their students, note-takers, written directions for assignments, flexible classroom attendance, additional courses specific to disabilities, and alternate assignments. Other accommodations included a service animal, support programs for the university ASD population, sensory accommodations, better awareness from staff on disability, neurodiverse spaces on campus, reduced course load, a more “autism friendly” environment, career counseling, interpersonal instruction for faculty, disability inclusion clubs on campus, mental health supports, and social group supports. See Table 4 that demonstrates that the included articles with faculty as participants did not include any information about the accommodations or supports they desire for the ASD population.

Disability Center. All included studies mentioned a Disability Service Center with various names for each university. For this code, I noted the terminology used to name this center at each university.

Methodology. Methodology was coded in each included study to determine the type of research conducted. The included studies had various methods, but included: survey, interview, focus group, interviews, and semi-structured interviews. All studies incorporated qualitative methods as the importance of narrative was mentioned in the introductions.

Difficulties Surrounding College Students with ASD. Difficulties surrounding college students with ASD were coded based on section. For this code, I noted all difficulties identified in the “Literature Review” section of included studies. All included articles are part of a broader conversation on the topic of supporting students with disabilities in higher education, and while

their citations may not have met the criteria of this review, they provide important context needed when assessing student supports. See Table 7 for the difficulties used in each of the articles included.

Participants. Participants were identified as college students with ASD or faculty of Disability Resource Centers who work directly with students diagnosed with ASD. The number of participants was noted, and additional coding was done based on type of participant.

Inter-Observer Agreement

A second screener, a professor from the Educational Psychology department, was selected to conduct inter-observer agreement (IOA) on three (30%) of the articles included in the literature review. The articles selected for IOA screening were randomly selected. We chose training articles from the other seven articles.

To train the second screener, a formal training session through an online video conferencing program was conducted. In the training session, we discussed the research questions, the categories of codes, and the individual codes from each section. With the three articles, we were able to provide examples and nonexamples of articles that would and would not be included in the actual round of IOA. The second screener reviewed the two training articles to check agreement and discuss any discrepancies. Upon completion of the training, the second screener reviewed each of the selected articles one-by-one and returned their results for comparison to ensure at least 90% agreement had been met. IOA was calculated by dividing the total number of agreements by the total number of agreements plus disagreements and multiplying by 100. Overall, we reached 94% agreement.

Results

Results of Codes

All articles included were similar in findings, participants, and overall narrative. College students diagnosed with ASD were the primary participants, however, this review included the faculty that worked at the resource centers who worked directly on accommodations and services with this population on campus. Surveys, followed by focus groups or semi-structured interviews were completed with the participants to get a narrative surrounding the accommodations offered to this population, what was helpful, where there were gaps, and difficulties in navigating a college experience.

Themes

Many constants emerged as themes throughout the literature review of accommodations for college students diagnosed with ASD. They are categorized to include both types of articles (i.e., articles with student participants and the article with faculty participants) for the following: (a) academic, (b) housing, and (c) 1:1 accommodation to highlight similar information, as well as the lack of articles focused on a faculty voice. Difficulties surrounding the general college experience for students created a theme that included all difficulties found in the introduction, results, or discussion of included articles from both student and faculty participants collectively. Results of the codes are found in Tables 4-7.

Student Academic Accommodations

The largest theme was student reports of their academic accommodations, as they were present in nine of the included articles. Most accommodations provided by the university resource center to students with ASD are academic accommodations both in and outside the classroom. Academic accommodations as reported by the students are as follows: extended time

for exams and quizzes, a reduced distraction environment for exams and quizzes, short breaks in class, tutoring, notetaker, audio recording, flexible due dates, calculator for exams, colored paper, use of technology, reader, scribe, optional group assignments, and modifications to testing procedure. See Tables 3 and 4 for which articles referenced each accommodation.

Student Housing Accommodations

Few housing accommodations were specified apart from general “housing accommodations” without further detail. Private housing or a single room was the only accommodation specified. One article mentioned rules for hallways and posted schedules, but it is unclear if that was noted as an accommodation or simply how the dormitory operates. See Table 3 for which articles referenced each accommodation.

Student 1:1 Accommodations

Other than academic and housing accommodations, students can have access through their university’s academic resource center to have additional accommodations provided more globally rather than implemented within a specific class. Five articles mentioned 1:1 accommodation. These accommodations included: faculty mentorship program, academic coaching, social skills group, counseling, writing center, peer mentorship program, weekly check-ins, scheduled staff support, specific program for students with ASD learning social skills, and scheduled staff connection support. It should be noted that tutoring, counseling, and faculty mentorship were the only accommodations stated twice. This could highlight the differences among universities and what is considered an accommodation and what is considered a support for all students.

Faculty Accommodations

One included article had faculty as the participants (Brown, 2017). For academic accommodations, one code was “reasonable accommodations” to clarify that the resource center faculty were mindful of creating accommodations to fit the needs of each student individually and what they deemed reasonable per student. Specific academic accommodations included notetaker, audio recording lectures, extended time for exams and quizzes, reduced distraction environment for exams and quizzes, and priority registration.

For housing and 1:1 accommodation, there is little mention of housing accommodations reported by the student participants, however, there was one accommodation mentioned specific housing accommodation for college students with ASD living in on-campus residences: single residence (with and without a price reduction).

Faculty 1:1 Accommodations

The faculty did not report, in the article included, 1:1 accommodation being provided to students with ASD.

Difficulties Surrounding Student ASD Population

The included articles draw on a wider body of research that cite difficulties for students with ASD as they navigate their college experience with success. Some note it only in their introduction, while others make mention of these difficulties during an interpretation of results. However, the difficulties noted are very similar among all 10 included articles. The first and most mentioned difficulty is retention. Many other difficulties are mentioned that contribute to the lower retention rates, compared to neurotypical college students. These difficulties include college retention, interpersonal skills, communication with faculty and peers, and self-advocacy.

Discussion

Interpretation of results

Overall, my findings from this systematic literature review of research surrounding my inclusion and exclusion criteria for accommodations for degree-seeking college students diagnosed with ASD yielded three major points of discussion.

First, the articles in this review highlight the difficulties that surround college students with ASD navigating a university experience. Transitioning from high school to a post-secondary education is an overwhelming adjustment for any student, but increasingly difficult for students with ASD. There are many consistent characteristics of individuals with ASD that would increase the difficulty of everyday university tasks (i.e., going to class, varying routines, socialization, and lack of faculty support). A common misconception is that students diagnosed with ASD are also diagnosed with a learning disability (LD) or other cognitive impairment, yet over half of the ASD population has average to above-average intellectual capabilities (Accardo, 2019b). This fact alone supports the need for not only academic support and accommodations, but for socialization support to ease some of the difficulties associated with ASD on a college campus. “Only 41% of students with disabilities, including autism, enrolled in a four-year college will graduate with a bachelor’s degree. By comparison, around 59% of the average, non-disability students graduate” (White et al., 2016).

Second, the included articles demonstrate a lack of options for housing accommodations, which may be essential for social support and successful independent living. The number of students diagnosed with ASD who are attending universities, specifically four-year universities, steadily rises each year (Accardo, 2019b). The entrance to their choice of university often comes with the demand of on-campus living. Students with a diagnosis of a disability can be registered

at an academic resource center to accommodate their academic needs based on their diagnosis' impact on academic performance; however, it is reportedly less common that this incoming demographic of the student population could receive on-campus housing accommodations to best fit their unique needs related to symptoms of their disability.

Third, a common theme students reported needing was a more inclusive university that is both sympathetic and empathetic toward its students with disabilities. The main question in this area of discussion would be how universities can create a better culture surrounding their student population with ASD. Some students report that they desire clubs on campus open to typical students and those with disabilities to create a safe environment for prompted and supported conversation and mingling. Other students wish for faculty training, so professors and university staff are aware of how to successfully accommodate and interact with their students with ASD. However, that inclusion may manifest, students crave safe spaces on campus and to be able to experience college as "themselves." Student voice should be a part of the conversation when discussing what accommodations and supports are needed and will be helpful to overall college success. From the student and staff reports in this literature review, I see that academics are covered by way of accommodations; however, it is daily living and social skills support that students crave.

Limitations

When looking at accommodations and supports for college students on the spectrum, including junior, community, or two-year, colleges could have provided more literature to review. While the focus is on what would be most helpful accommodations for students with disabilities, another limitation in this literature review is the lack of faculty participants in the

research. I would like to have accessed the individualization of accommodations for each registered student and how accommodations were decided upon at the enrollment center.

Conclusions are based on what was reported, but there are limitations to the research being analyzed. Opening to different methodologies would answer some different questions. I solely analyzed student reporting and could benefit from viewing from the lens of what qualitative data could provide. It would be interesting to look at accommodations provided to ASD specifically and how that compares to all other registered diagnoses. Seeing how academic support differs from one disability to another would be an insightful addition.

Implications for Future Research

There are a few programs specific to the life and social skills for degree-seeking students in four-year universities. Future research could observe qualitative information on how students report feeling about entering a university setting, many live on-campus, leaving students in an environment where they leave the many school and familial supports and enter “campus life”, where they navigate that independently. According to the student reporting from the included articles, there is a strong desire for campus organizations and specific programs for students with ASD. It would be helpful to fill the gaps in the literature to do a study of what accommodations or services students with ASD report desiring for college success and how those accommodations could translate into a specific program. Without programs specific toward the university population of students with ASD, assimilation and comfort may be extra challenging. A common theme that emerged was a desire from college students with ASD to have a campus culture that was more accepting, inclusive, and educated to the needs of the autistic community. To get a campus that is more accepting culturally, formal training for staff and faculty to encourage professors to be knowledgeable in how to be inclusive and accommodating to their

students with ASD. This training could come from the information gathered from students with ASD from another study. Clubs and elective classes that are geared toward disability awareness and inclusion, specifically surrounding autism spectrum disorder, would allow the opportunity to merge the neurotypical college students and community with the autistic community, creating a more immersive experience for both the neurotypical and neurodiverse communities.

Accommodations need not be included solely in a classroom setting, students will spend significantly more time in their on-campus residence whether that be decompressing from the day, studying for their courses, engaging with peers, eating, and sleeping. Apart from general housing accommodations, the only accommodation mentioned for on-campus housing is a private or single room. While a specialized room arrangement might be a helpful accommodation for students, is it the only helpful accommodation to ease the transition from living at home to on-campus living? The faculty in place to approve accommodations, both housing and classroom, has limited research of how they feel about the accommodations offered, what they are doing for each individual student and as a collective of registered students, and what they believe to be reasonable. There is vastly more research indicating on-campus accommodations, both in and out of the academic classroom, from the perspective of the students. However, faculty perspective on how they are best accommodating their students and what resources could be more available to support their holistic university needs and provide evidence-based support for developing resource centers.

By using this research dissected through this literature review, I will be able to dive into the gaps in the literature and discover a more in-depth look at how faculty at academic resource centers across various four-year universities local to and surrounding Oklahoma. I will explore their feelings toward the accommodations that are common to their universities and what they

believe is the most helpful to their student population with ASD. This may be able to address faculty perspectives on potentially helpful and feasible supports.

In future research, I will explore how accommodations are determined for students with various disabilities. I will examine perspectives on social and life skills support from multiple roles within the university since these supports were only mentioned by student participants. I am seeking to resolve the mention of those supports from the perspective of university faculty and discover why these services are not offered. It seems important to explore how these services and supports are directly related to difficulties facing individuals with ASD. Due to the diagnostic characteristics associated with ASD, it makes sense for universities to provide support specific to students' needs in and outside the classroom and consistent with the support students have received through the entirety of their previous educational experience.

Gaps in the Literature

Throughout the research included in the present literature review, no study included an intervention portion. This notable absence is relevant because there is a gap in the literature in the effectiveness of these common accommodations. This begs the question, are universities commonly supporting college students with ASD in the best way with evidence-based practices? There is little research focused on the non-traditional accommodations provided by a four-year university.

Implications for Practice

This literature review yielded a bank of accommodations, though primarily academic. These results could be an opportunity for universities to look at the level of individualization in the accommodation process or how heavily they rely on blanket coverage based on diagnosis. The results of this review show what is being done but reports on areas that could be improved—

specifically in the domain of social skills. Another implication for practice may be for universities to explore the need for non-academic accommodations and supports, such as housing options beyond a private or single room. After reflections and universities find this to be true or an area of improvement, they can work toward enhancing the provision of accommodations and how they get faculty involved in administering accommodations. Universities can always work toward more awareness and inclusion for students with disabilities on campus.

CHAPTER 3:

Methodology

Supporting the development of social and daily living skills of individuals with autism spectrum disorder (ASD) in a post-secondary education through direct instruction is not universally happening across all university or college settings (White et al., 2016). Accardo (2019) reports that the number of degree-seeking students with ASD entering higher education is on the rise, increasing each year. There is little literature highlighting what accommodations or services are offered to create an educational environment of equal access and foster success in students with ASD (Brown, 2017; Cox et al., 2017; Hillier et al., 2017). After a systematic literature review discovering what supports students with ASD have access to and desire on campus, I want to fill a gap in the literature by: (a) seeking to understand the support that students with ASD receive in and out of the classroom, (b) how those students are supported on campus socially, and (c) what faculty members of university disability resource centers believe to be helpful or where universities could be more supportive. I will explore specifically if these faculty members believe that each student with ASD is having their individualized and unique needs met through university sponsored or supported services and accommodations. It is my belief, from what I have seen in the present literature and from my own lived experience with employment in a disability resource center, that this population is not getting their interpersonal needs met to create equal access to a holistic education.

As discussed in previous chapters, ASD is defined by the Center for Disease Control (CDC; 2019) as a developmental disability that can cause significant social, communication and behavioral challenges. While in K-12 programs, students with a diagnosed disability, such as ASD, are afforded services protected under IDEA. The protections for those accommodations

and services expire upon graduation of high school, or at age 21. When looking for accommodations that would apply to college, the Americans with Disabilities Act (ADA; 1990) enforces that no discrimination is placed on any individual with a physical, mental, or intellectual disability. The ADA is a civil rights law specifying that postsecondary institutions are responsible for providing reasonable accommodations to any student with a diagnosed disability to ensure equal access to education and educational materials (Accardo, 2018; Brown, 2017). Also, the HEA continues the function of IDEA by creating equal access to education and requiring accommodations (Brown, 2016). While legislation is a large step in assuring the rights of individuals with disabilities in higher education, it is vital to assess how those accommodations are determined to fit the individualized needs of college students, particularly those with ASD.

Accommodations in Higher Education

Students who engage with disability resource centers to self-advocate and receive accommodations for their disability are shown to have better academic outcomes than those who do not elect to engage with disability support services on campus (Brown, 2017).

Accommodations in IHE vary slightly among universities but are centered around the same themes, which were identified in the systematic literature review: testing accommodations, classroom accommodations, and housing accommodations. Testing accommodations most commonly include extended time for exams and quizzes with a reduced distraction environment, meaning a small group or an area where students can be without the distraction of a full classroom (Accardo, 2018; Cox et al., 2017; White et al., 2016). Classroom accommodations presented as short breaks in class, a note taker, or preferred seating. Housing accommodations were minimal and typically only included assigning a private or single room. These

accommodations can get more specific into the use of an audio recording device in class or the ability to have flexible attendance (Brown 2017; Cox et al., 2017; Hillier et al., 2018). The one aspect that is standard among accommodations at every university is that they are determined by the staff of the disability resource center based on the documentation provided and an interactive conversation with the student. Accommodations decided on by the student and staff are not fixed and can be changed to fit the evolving needs of the student throughout their academic career in IHE. For example, flexible due dates for assignments may be an appropriate accommodation for a student with autism their freshman year, but by their senior year they will have learned time-management skills that no longer benefit from the flexibility of a due date. To better understand the provision of supports for students with ASD in IHE, I seek to answer the following questions:

Research Questions

1. How are students with ASD receiving accommodations from their universities?
2. What accommodations do students with ASD use the most and least?
3. What are the areas of difficulty facing students with ASD on their university campus and how is it impacting their academic success?
4. How do directors of disability centers believe their universities could better support their student population with ASD?

Literature Review

Through the previously completed systematic literature review of the current research covering the accommodations provided for college students with ASD, three major discussion points that framed my research questions. The first point of discussion is the mention of the challenges surrounding college students with ASD and navigating their university experience.

“Only 41% of students with disabilities, including autism, enrolled in a four-year college will graduate with a bachelor’s degree. By comparison, around 59% of the average, non-disability students graduate” (White et al., 2016). Due to the nature of the disability (e.g., impacts on social, communication, and behavioral challenges), transitioning from secondary education where they have the structure and support of family and school staff heightens the difficulties in moving toward the total independence of an IHE. The main reason for lower graduation rates is not comorbidity with a learning disability or other intellectual impairment, but the lack of support for the everyday life skill required for successful independent living (Accardo, 2019).

The second point of discussion from the systematic literature review was the lack of narrative or content in housing accommodations. As could be expected, the main responses revolved around academic and in-class accommodations. However, with students living on-campus, it is fair to ask how the same hallmark characteristics of their disabilities being accommodated in university housing (Brown, 2017). Stimming and self-soothing behaviors are common with individuals with ASD (American Psychiatric Association, 2000). Up until they enter a dormitory, most students will have access to a safe space for these behaviors. Unfortunately, if placed with a roommate that they do or do not know, their living space may no longer be considered a safe space. The only accommodation mentioned in the literature review was a single or private room.

The third discussion point presented with student and faculty participants was the desire and need for universities to have a more inclusive and educated culture toward their students with disabilities, namely autism. Faculty understand that this is an area of improvement in universities to establish a more effective culture of inclusion, but I sought to find out specifically what my participants believe to be stepping-stones toward a more empathetic and understanding

community that allows students with ASD to be themselves freely instead of struggling to conform to the societal norms of current campus culture (Austin et al., 2017). This could manifest in the form of more specific training opportunities for faculty and staff of how to interact with, educate, and include students with autism into the essential functions of their class and to better navigate different communication styles, difficulties with group work, and more appropriate presentation requirements (Austin et al., 2017; Hillier, 2017). Another way mentioned for universities to be more inclusive was to have clubs that catered to students with ASD that allowed them to be “themselves” while exploring and sharing interests and mingling with students who had a similar lived experience (White et al., 2016).

Methodology

To further explore these findings of the previous literature review, I conducted a qualitative research study. The aims of the study were to expound on each type of accommodation (e.g., academic, housing, social) provided at different universities to assess current practice and variation across these settings. The participants and methods are described below.

Positionality Statement

As a researcher, I was influenced by my own experience as a graduate assistant at my university’s Accessibility and Disability Resource Center (ADRC). Working closely with college students with ASD and helping to design a collection of accommodations to provide equal access, I became interested by how helpful those accommodations were for those students with whom I worked. Seeing students transfer to my university from other universities, I noticed differences in accommodations and processes across universities. Through this project, I was able to explore the answers to a few questions I developed during my time at the ADRC.

Research Design

By nature, qualitative research allows researchers to get a wider range of individualized information from participants of the study. I used semi-structured one-to-one interviews to obtain qualitative data from my sample (Suri, 2011). Figure 2 represents the interview protocol. This protocol allowed me to receive responses in the form of a narrative from the directors of the disability resource centers through an interactive conversation of their lived experiences accommodating students with ASD on campus. I believe that it gave me a more holistic and overarching set of data, as opposed to a quantitative method of research (i.e., survey; Boyatzis, 1998). Specific to the content of my study, with autism being the disability of focus, an interview would allow faculty to describe the communication barriers associated with ASD, per the CDC criteria of ASD.

University Approval

I received approval for this study through the Institutional Review Board (IRB) at the University of Oklahoma (OU) before contacting potential participants. Because I identified participants from multiple universities not including OU, I elected to collect data from the faculty that work at the disability resource centers and not the students themselves. By doing this, I was able to avoid targeting vulnerable populations (e.g., individuals with disabilities) and did not need to receive IRB approval through each university. Also, the decision to exclude OU was made to prevent bias from both me and students, given my previous employment at the Accessibility and Disability Resource Center at OU, due to previously established relationships. Each step of data collection and materials was audited by my doctoral committee advisor to remain compliant with OU Graduate College guidelines.

Setting

All interviews with participants were conducted via an online video conferencing platform (i.e., Zoom). The online format gave me the opportunity to have more flexibility in scheduling with my participants and prevent the barrier of travel to perform the interviews with a wider participant pool. Another benefit of the conferencing platform was the ability to record the interviews and submit directly for transcription through Rev. Consent was obtained from each participant verbally prior to recording of the interviews. All that data was stored on OU's secure database.

Participants

For this study, I used a non-probability sampling method of purposive sampling (Suri, 2011). I initially sought to invite directors of disability resources centers from the Big XII Conference schools because they are decidedly similar in size to OU. To get in contact with the directors of each university's disability resource center, I sent my recruitment email to the email contact listed for each director on the center's website. If I did not receive a response from the potential participant within two weeks, I followed up with a phone call to the center. From Big XII schools, four directors agreed to participate. I anticipated a better response rate gathering potential participants through these schools. Therefore, due to the low response rate, the two largest universities from four surrounding states were included. From these additional schools, three directors agreed to participate. A total of seven directors of DRCs participated in my study. Participant information is in Table 8. Demographics of my participants are noted in the study. However, due to the specific sample of participants, I cannot ensure the sample is indicative of the population or diverse in race or gender. Rather, my sample is limited to the individuals who already hold those positions.

Among the seven participants, the average number of years spent in the position of director of their respective university's disability resource center was 4.9 years (Range = 1 – 9 years). Despite the relatively few numbers of years in their current role, no director had less than 10 years of experience working directly with students diagnosed with autism. Six participants averaged 14 years of experience with students with autism (Range = 10-20 years). One participant did not provide an exact number of years reporting “20 plus” years of experience with students with autism. Directors in their positions reported that their experience in the field and in their positions, positively influenced their ability to accommodate students and have effective interactive conversations regarding their disability and its functional limitations.

Procedures

One-to-one interviews that are semi-structured were the procedure for procuring data for this study (Suri, 2011). Open-ended questioning provided a wider scale narrative from faculty that lead to more specific questions that highlight insights into how their university best supports their population with ASD. It also created a conversation around what accommodations are currently available to their students but provided the opportunity for faculty to illuminate what accommodations or resources they wish for that best meet the collective needs of their students with ASD. Interviews were set for 45 to 60 minutes. They were conducted and recorded through an online video conferencing platform (i.e., Zoom). Questions were emailed to participants one week prior to the scheduled interviews to allow for faculty to contemplate the questions and their answers before our recorded interview and provide the opportunity to ask any questions prior to a recorded interview, upon request. The interview protocol (Figure 2) includes questions regarding the participants' background, their lived experience in their role in providing accommodations for students with ASD, and how they feel their IHE could best support their student population with ASD.

Interview Protocol

I began the interview, after reading the oral consent form, by introducing myself and with a reminder that this would be an approximately 45-minute interview. After the first half of the questions, I explained that there would be an opportunity for a break and they are welcome to exit the interview, if needed. Questions were asked around demographic information to gain a better understanding of how they got to the job they currently have and the number of years' experience they have working with students with ASD. Questions were asked about the registration process for students and what documentation students need to provide and how those accommodations are implemented in class. The most challenging barriers students face in daily living in an academic setting were questioned and how universities could better produce an inclusive university of acceptance. Finally, participants were questioned on how they would ideally like to see this student population supported on campus. After the interview, I asked if they wanted a copy of the transcript and if it was acceptable for me to reach back out via email.

Data Collection

I collected data through the interview sessions conducted on an online video conferencing platform (i.e., Zoom). Materials required for data collection were low, as I only needed my interview questionnaire, a writing utensil for note taking, and the video conferencing platform recorded the interview and saved to the OU database. All interview questions were discussed with a second party, the chair of my doctoral committee, for review on any unconscious bias. Questions were also informed by the literature review.

The recordings of all interviews were sent to a third-party, online transcription service (i.e., Rev) so that the interviews would be correctly transcribed. Transcriptions were received

from the service and coded manually. All interview transcripts were made available to participants upon request.

Data Analysis

Using a general thematic data analysis approach (Boyatzis, 1998), the transcripts printed manually were coded based on the established research questions and recurring items. Codes were separated into two categories: (a) inductive codes—differentiating between accommodations and resources provided currently for students and (b) deductive codes—accommodations and resources that faculty would believe to be helpful in aiding students with ASD toward graduation. For example, codes could include the following: academic accommodation, housing accommodation, desired resources, and challenges surrounding college students with ASD. Codes were entered into a codebook for reference for each interview and are included as an appendix (Tables 8-11 and Figures 3-8) in the research, ensuring validity. Thematic analysis was conducted after the coding was completed, securing the themes and response patterns from each participant.

Trustworthiness

Ensuring trustworthiness will be established through each process of data collection and analysis (i.e., reflexivity) by keeping detailed records of each step available for review to clarify that data was collected in a systematic way. By using reflexivity, I will ensure that there is no personal bias in the interviews or coding and that coding is not a process of confirmation bias by using my own lived experience in disability resource centers (Srivastava & Hopwood, 2009). To ensure trustworthiness of the data collected for analysis in this reporting, I utilized the method of credibility. Credibility seeks to clarify how one's findings are aligned with reality (Stahl & King, 2020). I sought credibility through member checking with my participants on the codes that I had identified through the analysis of the transcripts of our recorded interviews. According

to Stahl and King (2020), member checking will lead readers to trust the research and data collection of the researcher. All seven participants were individually emailed with the codes obtained from their transcripts with a deidentified alias of “X”. They were given the opportunity to respond to the primary investigator with any questions or concerns regarding the information derived from the transcript of their interview. Two of the seven participants responded to the member checking email with no issue. I received no response from the other five participants.

CHAPTER 4:

Findings

Introduction

In this study, I sought to fill a current gap in the literature identifying 3 major areas: a comprehensive understanding of (a) what supports degree-seeking college students diagnosed with autism receive, (b) how these students are supported on campus outside of the classroom, (c) what directors of campus disability resource centers (DRC) believe to be the biggest barriers for this student demographic, and (d) how these directors feel their university could offer better supports. Through a general thematic data analysis approach (Boyatzis, 1998), I was able to utilize data collection in the form of semi-structured, 1:1 interviews to find overarching themes based on the codes obtained through data analysis. My aim was to talk with participants who were the directors of universities that have similar landscapes to the university like the University of Oklahoma (OU), who was not a participant rather an inspiration for the dissertation topic. By targeting universities with similar landscapes, I aimed to include public universities that would have a similar student body given their proximity to Oklahoma. Due to the small number of respondents to my recruitment material, I expanded my recruitment strategies to include the two largest state schools in Oklahoma's four neighboring states. Expanding recruitment left me with seven participants who agreed to join the study, provide informed consent, and complete their interview.

Themes Emerged

Coding Protocol

Interview questions for participants were created based on the research questions for this study (see Figure 2). From the first three interview questions, I developed general codes deductively to guide my analysis. For the first interview question, I created the codes: (a) years

in current position, (b) years of experience with students with autism, (c) size of university, (d) presence of an autism-specific program, (e) increasing incidence of registration for students with autism, and (f) type of university (see Tables 8 and 9). For the second interview question, I created codes pertaining to (a) registration, (b) implementation of accommodations in class, (c) frequency/type of contact with students, and (d) documentation requirements (see Table 10). For the third interview question, I codes were categorized as (a) most commonly provided accommodations, (b) least commonly provided accommodations, (c) housing accommodations, and (d) other accommodations outside of the classroom (see Table 11).

For the remaining four interview questions, the responses focused primarily on difficulties and potential solutions the participants faced systemically and the students faced related to their disability. Therefore, I created codes inductively based on how the conversation evolved. Inductive codes consisted of: (a) difficulties with university culture and understanding, (b) difficulties with student self-advocacy, (c) difficulties with social connection and communication, (d) difficulties pertaining to training on campus, (e) difficulties pertaining to workforce and employment for students, and (f) potential solutions to targets these difficulties (see Figures 3-8).

Emerging Themes

From the coding protocol, I identified the following emerging themes. Director and university demographics are important information to note when comparing areas such as registration process and the amount of time centers must reach out to their registered students. Table 8 references the demographic information collected on participants and their professional experiences. Brent was an outlier in that he is a private university and noted that there are some differences he has noticed in the levels of support that most of the students require, as opposed to

his time in a similar position at a public university. As an example, the academic standard for admission was described as generally more rigorous and challenging for students compared to that of his public institution, yielding students that are higher functioning and requiring less support. Another example would be the difference in the amount of time participants have spent in their position. For reference, Tripp, Maggie, and Rusty had over 7 years of experience in their position while the other 4 participants had less than 3 years of experience. Regardless of the years spent in their current position as director of their respective university's DRC, every participant had at least 10 years of experience working with individuals with autism. It is also interesting to note that all seven participants reported an increase in the number of registered students with autism on campus and continued growth year after year.

University Information and Prevalence of Students with ASD

Seven DRC directors from 7 U.S. universities participated in this study. Six universities were public, state schools, and one was a private institution. The average enrollment across the seven universities was approximately 34,000 and ranged from approximately 14,900 to 69,300. Table 9 references the demographic information collected on universities. Adherence to the Americans with Disabilities Act (ADA) and its provision of accommodations for individuals with disabilities depends largely on the acceptance of public (i.e., state) funding. Though there was a large difference in the sizes of participant's universities, there were more similarities with receiving and implementing accommodations on campus than may be expected. Despite the sizes, all seven participants noted that they were "short staffed" or would have liked to have had more staff to be able to better support their student population with autism. Rusty says, "We have definitely seen an increase in the number of students registering with our center with ASD, but also an increasing number of students who believe they may have autism [and are] curious about

a diagnosis.” The need for more supports is identified in the following sections regarding how participants would like to see their universities become more inclusive toward their students with autism and how these institutions share many similarities in the difficulties these students face daily.

Amanda stated that they are seeing an ever-increasing number of students with autism seeking bachelor's degrees and higher retention rates of students with ASD reaching graduation. Amanda and Tripp attribute higher number of students and more students graduating with degrees to accommodations being offered in K-12 settings and into college. All participants reported seeing a steady increase in the number of students registering with their center that are degree seeking and have noticed an increasing number of students without a formal diagnosis believing that they have autism. With more students enrolling for accommodations, according to Maggie, it makes sense that the DRC is staffed appropriately to meet the needs of the student body. Rusty and Tripp comment that they are so low on staff that they are not able to keep up with the communication demands and check-ins that their increasing student population with ASD need and deserve to ensure the highest success in college.

It was noted whether the university has a dedicated program for their student population with autism. While not the target population, it can be inferred that if universities had an autism program, the DRC would be able to have their students of higher need accommodated on campus and had personnel to use as a professional resource in accommodating students on campus. Ashley, Brent, Rusty, and Tripp all had established autism programs on their campuses, and all noted that they used the autism program staff as a resource on particularly unique student experiences that they needed some assistance.

Documentation Requirements

Participants varied in what is required for documentation, as seen in Table 10. Asking participants about documentation requirements for registration with their center varied from Brent and Maggie requiring a formal diagnosis from a licensed professional to Ashley where they require nothing more than student interest for accommodations. Amanda, Jon, Rusty, and Tripp use documentation as secondary or tertiary information to support student self-reporting on the impact that their disability has on their daily lives. Rusty reports that they never want obtaining documentation to be a barrier to receiving academic accommodations. Rusty says, “Sometimes we rely heavily on the documentation, sometimes we may not rely as much on the documentation based on the information we're getting in the narrative, so it really is an individualized process in that sense.” Tripp states that specifically with a diagnosis like ASD, receiving a formal diagnosis can be a lengthy process and while they are waiting for these students to receive a formal diagnosis, they aim to accommodate the comorbid diagnoses such as attention deficit hyperactivity disorder (ADHD). A more black and white approach from Brent is that they want to have clear barriers to which students receive university supported accommodations and how students go about registering with their center.

When documentation is required or encouraged, four of the seven participants stated that they look to the Association on Higher Education and Disability (AHEAD) guidelines to help put a parameter for what they specifically require. AHEAD’s website clearly lays out what appropriate documentation should contain. For example: credentials of diagnostician, level of detail to impact on disability to daily life functions, and narrative of additional pertinent information. Amanda is at a center that centers around AHEAD documentation guidelines and

says, “We're also really big on the AHEAD guidelines in terms of documentation where it really relies on more than it does on documentation to fill in the gaps and things of that sort.” Through documentation within AHEAD guidelines, DRC staff observation, and an interactive conversation with the student, college students with ASD should have provided the necessary information to receive the most appropriate accommodations that meet their unique needs and personalities.

Receiving Accommodations from a Disability Resource Center

Table 10 references the registration information (e.g. how to register, implementing accommodations in class, amount of contact with the student, and documentation requirements). The process for students to get registered at each center of the participants did not vary much. Three participants (Ashely, Maggie, and Jon) have a process that allows students to register through an online application before setting up an appointment with a staff member. Three participants (Brent, Amanda, and Tripp) had students call in the center to submit documentation of their autism diagnosis for review before making that initial appointment. Rusty is unique in that they are the only participant where a student can apply for registration online and receive accommodations without ever having to meet directly with a DRC staff member. Rusty claims that this is a way to isolate students who only seek extended time on exams and quizzes and a reduced distraction environment. Allowing students to do that expedited process completely through online forms frees up appointment time and staff resources to work more closely with the students who need additional and more specific accommodations.

Implementing accommodations in the classroom. All seven participants shared that faculty participation (e.g., buy-in) is critical in ensuring implementation of accommodations in their classes. Ashley, Brent, Amanda, and Tripp all utilize a system where the DRC staff sends

out a letter of accommodation to each of the students' professors for the semester detailing their approved accommodations and providing contact information for where they can ask implementation questions. An online portal is utilized by Maggie and Rusty where students login to the portal and select what accommodations they would like to apply for each individual course they are taking that semester, and an automated message will be sent to professors simply stating what the approved accommodations to be used in their class are. Jon is an outlier in the fact that the burden of informing professors of what accommodations will be utilized in their classroom is entirely on the student. It is Jon's belief that students need to take this opportunity of self-advocacy to hone their skills in that area, all while being able to seek out staff from the DRC to aide in those conversations if there is a barrier or difficulty in that conversation.

Even with accommodations, apart from Jon, being primarily handled by the DRC staff, there is still a push from participants for student self-advocacy in communication with their professors and communication with professors. Ashley says that there is only so much a DRC can do to assist a student or provide support in navigating tricky conversations if they are not willing to reach out for help or guidance. Amanda mirrors a similar approach in that they are not "mind readers, even though it would be so helpful" in staying on top of student success and making sure that no student is "falling between the cracks". Maggie mentions that a concern for some students with ASD is that they will typically neglect to reach out to the DRC if a professor is failing to implement their accommodations in class. For example, Brent says that a large area that students do not get accommodation on is in-class quizzes. Brent states that students are still able to get their 1.5x standard class length on a 5-minute, in-class quiz, but professors easily forget to think to accommodate it and students are generally not speaking up about the extra time.

All seven participants declared that the amount of communication they maintain with the student was solely dependent on if the student reached out to the DRC. Also, all participants said that contact with professors is limited to whether they reach out regarding questions on implementing specific accommodations. For example, Tripp had a specific incident where a professor reached out to understand the logistics of the accommodation “no overhead lighting” and what steps would be to make sure this was addressed. However, Ashley, Maggie, and Rusty explain that when a professor reaches out it is primarily to express concerns on challenging in-class behavior from the registered student.

Communication with DRC after registration. All participants, with the exception of Brent, state that all communication with specific students, unless noted as an accommodation, is a student-led action and that they will not be checking up on the student's status. Participants wish they had the staff to be able to reach out more, but short staffing makes it difficult to keep up with students. Brent notes how student-led communication can create a barrier because it may be challenging for that student. Brent ensures that they make one check-in with each student per semester, with the understanding that they may need more than one round of communication per semester. Rusty expressed significant stress about being understaffed and unable to meet the communication and 1:1 needs that their student population with ASD needs. Per Rusty, “I think the majority of communication that we have with students is via email.”

Report of High- and Low-Frequency Accommodations

Accommodations vary from university to university and are at the discretion of the participants. All participants offer in-class accommodations (e.g. extended time on exams and quizzes or note taking) and housing accommodations (e.g. private housing or an emotional support animal). Jon states, “Extended time seems to be fairly common.” To determine the best

accommodations for each student, Tripp, Rusty, and Brent suggest that an interactive conversation with the student after reviewing documentation is the best way to establish accommodations. On the other hand, Ashley does not require anything in addition to that interactive conversation and student-reported historical context. Table 11 references the theme of accommodations offered.

Most common academic accommodations. Table 11 references the most common academic accommodations reported by study participants. Extended time for exams and quizzes paired with a reduced distraction environment was noted as the most common academic accommodations by all seven participants. Without contest all participants declare extended time to be the highest frequency accommodation. Maggie says, “Reduced distraction room for exams and more time by far and away; that is the one that I think almost all of them use.” The second most common, with four participants detailing it, is note-taking assistance. Flexibility on due dates for assignments was another common accommodation for students with ASD for Brent, Amanda, and Tripp. Rusty commonly offers breaks during exams for students so they can better manage their anxiety yielding a mental space for demonstrating their content knowledge. Tripp encourages the use of electronic textbooks (e-text) for students to better connect with the material in the textbook by listening to the text be read aloud and increase reading comprehension.

Ashley has the largest list of accommodations that are commonly provided to students with ASD. First, Ashley’s DRC offers a peer mentoring program that allows students with ASD to pair up with another student registered the DRC to have a buddy for social activities on campus or school sponsored events (e.g., tailgate, sporting events, or various clubs on campus). Another set of accommodations implemented in classroom is the provision of concrete

instructions for assignments and guidance on assignments from instructors. Ashley believes clearer directions and instructions remove the barrier for students to ask clarifying questions or miss the assignment and receive a poor grade over a communication barrier.

Least common academic accommodations. Table 11 references the least common academic accommodations reported by study participants. I described least common accommodations as infrequent, unusual, or outlier accommodations utilized by at least one but not many students with autism (e.g., ability to bring food or drink to class). Brent, Jon, and Tripp did not report any least common academic accommodations implemented in their universities for students with ASD. Amanda says, “long gone are the days where it’s just time and a half and a note taker as the accommodation request.” Jon stated that they do not like to assign accommodations that would be difficult to transfer to other universities, so they “keep it simple.” Ashley, Amanda, Maggie, and Rusty did not have any similarities in their least common accommodations list. Ashley states that permission to leave class early and flexible attendance would be the least used accommodations in their university. Ashley says, “I try to stay away from accommodations that could later be used as a ‘crutch’ for students to avoid class and their assignments.” Amanda rarely utilizes preferential seating, changing the format of exams, not requiring group assignments, and no overhead lighting (i.e., the use of lamps only in the classroom). Amanda said that they are willing to do whatever it takes to provide a comfortable environment for their students to be the most engaged in class. Maggie offered weekly appointments for students to meet with a member of the DRC staff; unfortunately, the only reason this was a less common accommodation was due to low staffing—noting many students would benefit from this accommodation. Finally, Rusty noted accommodations such as not working in groups, not giving presentations, and having a private testing environment. Rusty

emphasized that a hallmark characteristic of those with ASD is the social and communication barrier, therefore, found these accommodations to best allow students to demonstrate their content knowledge.

Housing accommodations. Table 11 references the housing accommodations reported by study participants. A private or single room was accommodation for all seven participants. Maggie also noted the accommodations of an exemption from the dining requirements (i.e., required meal plan) to allow students to be able to eat in a way that is comfortable and removes any anxiety around this self-care necessity. Examples might include selecting preferred foods not available through campus dining or eating in less crowded environments such as in their room or separately on campus. Maggie says, “We’ll deal with housing accommodations and we’ll do dietary; It could be we’ve had students with specific dietary issues, not necessarily related to an allergy, but more related to the autism spectrum.” Jon and Rusty noted the accommodation of an emotional support animal (ESA) allowed in on-campus housing free of charge to the student. There were rules and guidelines surrounding this ESA and how to best keep the rest of the student body and the animal safe. Rusty said that an ESA is an evidence-based intervention and proven to be beneficial for the students.

Difficulties Faced by Students with Autism

Students with autism have been identified to have several key difficulties that prove to be larger barriers for them than for their typical peers in a college or university setting. According to the seven participants in the study, these included: (a) social connection and communication, (b) self-advocacy, (c) workforce employment, and (d) university culture and understanding. First and foremost, communication in general proves to be a profound barrier that can impact many essential daily functions of being a traditional college student (i.e., engaging with peers,

discussing grades with professors, advocating boundaries with roommates). Brent put it plainly by saying that difficulties can be summarized with their statement that students struggle with “understanding the rigors of a college environment.”

Social Connection and Communication. Figure 5 references the results for each participant under the code of social connection and communication difficulties. All seven participants note the difficulties that students have when communicating or connecting with others and how that is largely due to their diagnosis of ASD. Rusty expresses that it is not just difficult in the social context of classes but, “It's the social aspects like fraternity, sorority, life, all of those things, getting acclimated and feeling like they belong.” Engaging with peers in and out of the classroom can be a challenging task for any traditional college student; however, when a communication barrier is present, these students can experience an increased difficulty in establishing meaningful relationships, protecting boundaries with peers, and navigating something like group assignments. Maggie mentioned that students with ASD revert to where they are comfortable, which leads toward isolation. Jon said, “Developing community, developing supports that are going to be helpful to individuals, particularly who have communication needs, who have social needs along the lines of autism spectrum.” Misunderstandings can lead to damaged relationships, poor grades on assignments, and a feeling of isolation. Additionally, Maggie emphasized the importance of universities having a peer mentoring program where someone their own age can help navigate trying new social situations together. Ashley also noted a program similar to what Maggie described, and that it has proven to be successful.

Self-Advocacy. Figure 4 references the results for each participant under the code of self-advocacy difficulties. There was a common theme among participants in that their registered

students with autism overwhelmingly share a trait—they find that the students are not mentally or emotionally prepared for the university experience's demands. When these students enter university, they are deemed adults and therefore are to make their own decisions for the outcome of their future. Many students have relied so heavily on their parents and Individualized Education Plan (IEP) team members to address their difficulties and challenges that they are unable or unwilling to advocate for themselves. Rusty said, “if I don’t hear from you, I assume everything is going well.” Rusty explained that this can be difficult because sometimes it is the student who is not speaking up who needs additional help or guidance, but because they are unwilling to or unable to advocate for themselves, they suffer. Brent encourages students to self-advocate, but never wants to leave them feeling like they don’t have a resource to ask for help. Brent said, “I try to balance the self-advocacy piece with the, if you need support, you got it kind of thing.”

Workforce and Employment. Figure 7 references the results for each participant under the code of workforce and employment difficulties. The whole point of attending a university is to be able to acquire the knowledge and skills necessary for gainful employment in their area of study. Unfortunately, six participants do not believe that their student population with autism are being set up with an environment that will have them fully prepared to enter the workforce. Ashley understood the fears of her students by saying, “They're concerned about getting a job, but it's not really getting the job, that's an issue, but how do I function effectively in a job setting?” Amanda was the only participant who did not reference students entering the workforce through employment specifically, but they did talk specifically about not having developed the soft skills required for success in college that would carry into adulthood after graduation. In the United States, autism and developmental disabilities are the most unemployed disability category

(Wolmark, 2023). According to Wolmark (2023), a staggering 85% of adults with ASD being unemployed. This statistic is shocking considering the increasing number of students with autism entering college each year to make themselves desirable candidates for post-graduation employment. Ashley, Brent, and Rusty suggested that if DRC would be able to have a higher amount of communication with their students, they can provide explicit instruction on soft skills that would benefit the students after graduation employment opportunities. Maggie said that students are not prepared; therefore, they are not competitive when applying for jobs. Jon verbalized that he wished students would learn interpersonal skills, which would allow them to demonstrate their content knowledge of their area of study. Rusty said that focus needs to be placed on employment preparation because, “The whole point of going to school is getting a job, a career.”

University Culture and Understanding. Figure 3 references the results for each participant under the code of university culture and understanding difficulties. Overwhelmingly, all seven participants emphasized that if there was generally a more understanding and accepting tone of the university, the students with autism would have more of a chance to thrive and obtain the knowledge and experiences that happen outside of the classroom that also aid in preparation for after graduation. Tripp expressed, “Maybe understanding that that student probably is doing the best they can under the circumstances.” Amanda said universities need to, “just create our spaces to be more welcoming for a student on the spectrum or anyone who’s divergent to come into our spaces and not feel overwhelmed.” If universities had staff that were eager to learn about autism and how to best communicate with their students with autism, navigating the social rigors of college would not be as challenging as it currently is for students. Maggie noted that when it comes down to it, all students want is to have, “a sense of belonging and a sense of place.”

Moving Forward: Enhancing University Supports

According to participants, compliance with the laws protecting college students with disabilities from discrimination based on their disability is viewed as the bare minimum a university can provide to support and accommodate their student population with autism. Participants said their universities have made some steps forward by having more inclusive on-campus events but feel that the overall culture of the university is less inclusive to their neurodiverse population. For example, ensuring that planning committees have a representative for disability inclusion to provide a mindful approach to including all students on campus and having designated safe areas, like Maggie suggests all universities do. Academic accommodations are put in place in the classroom settings to provide an environment of equal access to educational materials; however, three participants believe that the real solution for creating equal access to educational content is incorporating universal design into all curricula.

Three participants believe that the answer to some of the more utilized and easier to implement accommodations could be handled with the university-wide acceptance and use of universal design. Black et al. (2015) suggests that if universities encouraged each individual classroom to be designed to anticipate, and meet, the needs of college students with disabilities, they could alleviate the barriers surrounding students being accurately accommodated for their disability. Participants do understand that each student diagnosed with autism has a unique presentation and they prioritize getting to know each student individually to provide the most appropriate classroom, and out of classroom, accommodations to ensure equal access to education and educational materials. Maggie said that promoting universal design in the schools would “incorporate new teaching pedagogies, incorporate more flipped classrooms, and increase hybrid learning.” Universal design would enhance the overall curriculum and eliminate some of

the need for some accommodations according to Ashley, Amanda, Tripp, and Maggie. There will still be the “outlier” accommodations that are required to meet the needs of some students.

Training for faculty looks different at each of the participant’s universities. Figure 6 references the results for each participant under the code of faculty training. The one similarity is that all seven participants avoided specifics on the need for training, yet five mentioned that many staff members could use more information on what autism looks like in a classroom, how accommodations work, and effective communication strategies to use with their students with autism. Maggie said, “There are other opportunities for training about inclusion, not of course, it's about disability, but other diverse identities as well that folks can take.” Brent and Rusty did not mention faculty training in any other way than it is needed to best create a culture of understanding among faculty and students. Ashley mentioned targeting faculty training at their university by utilizing educational email blasts to faculty and staff. Unfortunately, Ashley feels they are restricted to only using emails because they do not have the support of administration or resources to be able to do virtual or in-person training that would provide significantly more detailed information. Also, Ashley is unsure if recipients of the email training are even fully reading and obtaining the contents of that correspondence—rendering it an ineffective method of training.

Amanda and Jon both shared that they provide the opportunity of on-campus, in-person training for their faculty to be better equipped to navigate communication with the students with ASD in their courses. Amanda emphasized making sure faculty is educated on their ADA compliance requirements and ensuring that they have their university functioning as a trauma-informed facility to best serve their student body. Jon targeted specific training for academic advisors on how to best communicate with students with ASD. Jon suggested that by equipping

these advisors with the skills they need toward effective and be able to best serve students with ASD. Academic advisors need to be able to have tough conversations with students and help them best prepare for employment. For that reason, Jon emphasized training for academic advisors. Jon said, “We are working to develop a comprehensive system of training that will include more than just the rudiments of what it is to accommodate, but also how you can do that effectively with different groups or other considerations that might be a part of that”

Tripp took an alternate approach and emphasized an “early intervention-esque” approach to trainings by providing training to local high school guidance and college counselors so that they can best prepare and equip students and parents for higher education and the self-advocacy necessary in IHEs. While Tripp noted that this approach is not nearly enough training to best equip faculty to be able to best serve, teach, and understand the students with ASD, they are focused on providing training to have students more prepared as they enter university instead of helping them after there are moments of difficulty or challenges.

Finally, Maggie had the most focus on faculty and student training so that they can better establish a culture of understanding and inclusion. First, they educate the campus community on the needs of diverse students. By doing this, Maggie can reach the campus, not just faculty, by including staff and students so everyone has access to learn how to be more inclusive. Secondly, Maggie took the impacts of the pandemic and noted how the shift to accommodating more students virtually and digitally was extremely helpful to creating equal access to areas such as professor office hours, courses, and clubs. They pushed administration to allow the DRC to keep some of those pandemic accommodations (e.g., attending class virtually) put in place for all students and assign them, when appropriate, to students with ASD. Finally, Maggie encourages administration and university leadership to require continuing education credits (CTE) of faculty.

CHAPTER 5:

Discussion

Summary of Findings

The purpose of this study was to gain a better understanding of accommodations provided to college students with autism spectrum disorder (ASD) from the perspective of the directors of disability resource centers. Much of the data yielded from the study surrounded the processes of student registration, the accommodations offered, and how those accommodations are implemented in classes. Results were collected on the difficulties that these college students with ASD face as they navigate the social and academic rigors of the college experience. However, there were five main takeaways that I believe could inform improved changes to these processes and identify areas that merit more explicit attention as we look to best support college students with all disabilities, particularly ASD. First, universities need to look toward more uniformed guideline requirements for receiving accommodations. Second, there is a need for more accessible formal diagnostics to obtain necessary documentation of a disability for not only university purposes but also to assist with potential support after university. Third, the differences between supports offered at a public versus a private educational institution and how that impacts what students enroll in each type of school. Fourth, the lack of enough staff at the disability resource centers (DRC) to meet the demands of their registered students is negatively impacting the ways that DRC could best assist their students on campus. Finally, the participants highlighted a concern for the readiness of students to transition from university to employment and being prepared to navigate all the requirements from interviewing to working in a place of employment.

Guideline Requirements

Participant responses varied regarding the requirements for obtaining academic and housing accommodations from their universities. There are currently no guideline requirements for either public or private universities. When participants mentioned that they used guidelines not provided by their university, they stated that the Association of Higher Education and Disability (AHEAD) guidelines for documentation were on what they would rely. The AHEAD documentation guidelines are not the universal guidelines required for all institutions of higher education (IHE). More discussion around the adoption of standardizing the documentation process in IHEs may facilitate processes within and across institutions. It is my belief that a standardization process would aid in keeping IHE administration all on the same page with the needs of the DRC and potentially result in less pushback from faculty on the provision of supports. Having guideline requirements would open the door for quality indicators to guide programs rather than a specific framework or curriculum for procedures and help to prevent bias in providing accommodations for students. For example, quality indicators, or standardization of sorts, would be helpful by creating a uniform approach for universities when it comes to accommodating their students on campus and help to make sure that universities remain compliant with ADA standards.

Obtaining Formal Diagnosis

For all but one participant, schools were required to have some sort of documentation from a licensed provider (e.g., psychologist, medical doctor) detailing the formal diagnosis of ASD, accompanied by any functional limitations on daily living, ideally. If the students do not get their diagnoses in the public school system, there can be many barriers that could prevent students from obtaining that formal diagnosis. When parents or teachers recommend an evaluation for diagnosis in the K-12 system, it is provided at public expense (i.e., free of charge

to the family) and conducted by the school system through the implementation of IDEA's Child Find. The cost of obtaining a diagnosis after the public-school years could pose a financial barrier that may prevent many individuals from even being able to join a waitlist, which takes many months. Other factors may result in a student waiting until they were no longer a minor to seek diagnosis as an adult. Parental involvement could play a factor when they do not want to address that there is an underlying diagnosis, or the student could have fallen through the proverbial cracks in the public-school system (Naicker et.al., 2023). For example, parents may not be ready to accept their child has a disability and refuse all testing. As another example, the school system may not have adequate procedures in place to uphold their responsibility under IDEA to identify children with disabilities.

Private Versus Public

Only one participant, Brent, worked at a private university and brought up a few compelling points that I thought were significant enough to make a special consideration when thinking of the best ways to support university students with ASD. The first point to note is the entrance requirements, by nature of private universities, prove to be different. According to many sources, specifically College Counselor Services (2024), private university entrance requirements tend to be more challenging, which leads to students with autism being "higher functioning." Brent noted that when the entrance requirements are more rigorous, it would automatically lower the number of students that would require more support and accommodations to successfully navigate the academics. Another area to note is that the cost of tuition at a private institution is higher. Brent expressed that, in their experience, "You got to have a good GPA, you got to do other things, which sometimes works really well for students on the spectrum, especially students who have low needs."

Staffing of Disability Resource Centers

All seven participants noted that they are not staffed well enough to have the capacity to reach out to registered students at the rate that they would think is the most helpful and appropriate. Rusty says, “You know, as far as the number of students, I wish we had more staff to be able to do more proactive outreach, but we're just not able to.” With the reported five out of seven participants seeing an increase in the number of students receiving accommodations for ASD, it only makes more sense that universities should recognize this increase and allocate funding accordingly to allow the DRC to be appropriately staffed.

Employment Preparedness

Six out of seven participants reported that there is fear that students are not prepared to enter the workforce after graduation due to the fact that students’ social skills are still not developed or generalizable. Universities are not always assisting their student population with disabilities in the soft skills needed to excel outside of school. As findings from my literature review found (See Chapter 2), academic accommodations are the most prevalent type of accommodations provided to students with autism. Even with the limited support from the DRC, there is a lack of self-advocacy among the students.

With this finding, it is important to note the distinction between accommodations and interventions. Accommodations provide access to an environment by altering the environment in a way that allows the student comprehend it and demonstrate their understanding (e.g., providing braille text instead of printed text for a blind student). However, accommodations do not modify the expectation nor do they teach to a skill deficit. Interventions provide instruction to students to address a skill deficit by learning new skills. Therefore, when students lack self-advocacy skills, accommodations will likely fail to fully meet the student’s needs, and intervention (e.g., a

provided service or instruction) may be necessary. It is not reasonable to expect students with ASD to advocate for themselves in their jobs or getting workplace accommodations after graduation if they have not demonstrated those skills prior to graduation. Regarding those soft skills, we need to ask, are the students able to live independently and navigate time-management to do their daily tasks and keep up with the demands of work? Currently among participants, there are not any areas of explicit instruction for the executive functioning or, relatedly, self-advocacy skills to enable students to continue their success after IHE and into employment.

Limitations

While meaningful results were delivered from the study, there are several areas of improvement that could expand upon results or provide more detail using additional methodologies (e.g., survey response, focus group). I present three limitations of this study: (a) small sample size, (b) participants, and (c) methodologies.

Small Sample Size

The first limitation of the study was the small sample size. Originally, the plan was to sample the universities in the Big XII conference to have a participant pool that has enough similarity to the University of Oklahoma (OU), where the research was conducted. There were 14 universities that I targeted for recruitment aiming for a minimum of 50% participation. Due to a lack of responses, I included the four surrounding states and sent my recruitment material to the two largest schools by enrollment. While I did not receive any communication back after reaching out twice to multiple universities, three universities that did respond mentioned that they would have participated if they had the time due to short staffing. Short staffing left me with a restricted sample not representative of IHEs, thus the generalizability of the findings is limited.

Participants

A second limitation was the type of participants I targeted for this study. I recruited directors of the DRCs as participants rather than the students themselves. Students with ASD may offer different and important perspectives on their experiences obtaining and utilizing accommodations, which I was unable to ascertain from directors. Therefore, my findings are only one piece of understanding the entire situation around accommodations. However, directors of DRCs are key players in this field, and their insights help in this understanding and should not be neglected either. If students were the participants of the study, I would have liked to have learned directly from them regarding their lived experiences as college students and what navigating the demands of school and independence is like for them personally. Directors have contact with students and oversee all accommodations that are approved out of their centers, but it begs the question of how much time those students spend with these directors and how well they are able to speak to the day-to-day experiences of their student population with ASD. This gives us great information, but I feel like it is ideal to get data directly from the area of focus.

Additionally, when conducting research, it is important to seek a representative sample of participants to support the generalizability of the findings such as having a variety of demographic criteria such as race/ethnicity, race, age, and years in the field. In this study, I was limited by the individuals who responded to my recruitment material and consented to participate in the study. Therefore, I was unable to seek out the diversity component in participants because it is solely dependent on who is currently holding the position of director of the university's DRC.

Methodology

A third limitation could have been the methodology selected to answer my research questions for the study. While I believe that 1:1 interviews yielded valuable information, I am

curious if a different methodology (e.g., single case study, multiple case study, ethnography) might be helpful to address this limitation by filling some remaining gaps in the data. While I wanted participants to know I had the experience working in a DRC, I did not want my experience or perspective to shape their responses to my questions—potentially limiting the generative conversation. This approach limited responses solely to the depth of response each participant provided. I did not probe them in ways that may have cued their responses. For example, I did not want to push too hard or lead participants to a response during the interview process for outlier accommodations, which I know are available to students because of my time as a graduate assistant in a DRC. I also feel like because direct and indirect quotations were the approved data to be used in this study, participants were hesitant to talk about areas of their job working at a university that could be considered controversial. For example, in conversation it was hinted at, but no participant directly mentioned experiences with faculty not being supportive of accommodations or services for students. Perhaps a more intimate and extensive methodology would have allowed me to better ascertain the answers to my questions and allowed the participants to be more aware of and candid in their responses.

Implications for Practice

The findings of my study highlight two primary recommendations for practice. The first thing that these directors need to implement is a more generalizable set of guidelines for students with ASD as well as their housing and academic accommodations. It would be my recommendation that high school college counselors and IEP teams would be able to better prepare their students for the transition into higher education and that would be a much simpler process if there was a unified set of requirements for accommodations. Tripp acknowledges that currently, “there's a disconnect from transitioning from high school to college for families and

students.” Generalizable guidelines for registration requirements would also greatly benefit students who transferred to other universities so that the set of accommodations they have adjusted to will transfer along with the student.

The second recommendation is adequate staffing to ensure timely services. Universities need to increase the number of staff at the DRC so that directors feel supported, and they have the infrastructure to meet the needs of their student body with and without ASD. Results from this study yielded a strong desire for more staff because they would be able to have extended communication with their students that could benefit from it. DRC staff would be able to meet regularly with students with ASD to discuss their classes, time management, note taking skills, study skills, and how to best communicate with their peers and professors. The extra emphasis on executive functioning skills will set the students up for more classroom and out of class success at college and prepare them for the next chapter after graduation.

Implications for Future Research

The first topic of future research that came from this study would be the need to set it to the tone of student voice. Hearing a student perspective and letting them tell their own story and how they navigate their ASD diagnosis in a college setting. I believe that meaningful data could come from interviewing college students with ASD. It may also be an interesting point to have a longitudinal study format speaking with the same students from high school, transitioning into higher education, navigating college, and then entering the workforce. The time that would take would be significant, but it would be able to gather data in a way that has not been done before and provide meaningful feedback for how universities can best support their incoming students all the way through graduation and employment.

Second, future research should incorporate other research methods to delve deeper and gather more information on the topic of the study. This study primarily generated from my own personal experiences as a graduate assistant in OU's DRC and then the findings of my systematic literature review. My original hypotheses were ultimately confirmed by the participants who added little to my thought process and did not dive as deeply as I desired or expected. One possible reason for this was my selected methodology of semi-structured interviews. While interview questions were open-ended and some follow-up questions were asked, responses relied on what participants recollected during the interview and often lacked depth. Studies employing a mixed methods approach could gather the data pertaining to the quantitative and qualitative aspects of accommodations in IHEs. An in-person qualitative approach could provide more time for the interview or discussion to get more in-depth, detailed information as to what makes their DRC unique in how it best accommodates students on campus.

Conclusion

With the population of college students rising each year (Brown, 2017), it is important for universities to be equipped to meet the individual needs of students with ASD so that graduation and retention rates can rise (Accardo, 2019). Learning the skills required for earning gainful employment in their field of study is the goal in a university setting, but how are the faculty of DRC in the universities meeting this need? This study confirmed there are many similarities among how various universities navigate the accommodations process. There are also a few unique differences (e.g., documentation requirements, services offered) that vary from university to university. With data from existing literature and the addition of this study, there are enough commonalities to merit general guidelines for DRC operation, which will help students be best prepared for entrance to university. Once in university, it is important to help students develop

the skills that often prove to be daily difficulties and barriers to college success (e.g., communication with peers, time management). After a successful experience with classes, the social requirements of college, and the next steps toward independent living, students should be prepared to leave the security of a university setting and go into the workforce prepared to have a career in their area of study. A takeaway from this study is that schools should not just aim for compliance, rather putting the time and effort into students to make them best prepared socially, academically, and emotionally for life after graduation.

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Appendix:

Table 1

Inclusion Criteria

Category	Include	Exclude
Higher Education	public universities, four-year universities	community colleges, junior colleges, vocational schools, technical schools, trade schools, 2-year colleges, high school, transition programs, certificate granting programs
Disabilities	Autism Spectrum Disorder	Mental health, psychological disorders, physical disabilities, visual disabilities, mobility disabilities, learning disabilities
Methodology	qualitative studies, case studies, single-case design, survey studies	opinion pieces, commentary pieces, dissertations, systematic literature review, program evaluation

Table 2*Articles Summary Table*

Authors	Methodology	Participants	University type
Brown (2017)	Survey	469 Directors of Resource Centers	4-year
Accardo et al. (2019a)	Sequential Mixed-Methods of Non-Experimental Survey and Semi-Structured Interview	23 College Students with ASD	4-year
Sarrett (2017)	Mixed-Methods Qualitative Study with Survey and Follow-Up Focus Groups	35 Adults with ASD in or Just Out of College	4-year
Bolourian et al. (2018)	Qualitative Interviews	13 College Students with ASD	4-year
Accardo et al. (2019b)	Mixed-Methods Survey and Follow-Up Semi-Structured Interview	48 College Students with ASD	4-year
Cox et al. (2017)	Constant Comparative Approach- Qualitative Interview/Narrative	9 Students with ASD in College or Headed to College	4-year
LeGary (2017)	Case Study: Survey and Interview	10 Advanced Undergraduate Students with ASD	4-year
Van et al. (2014)	Qualitative Interviews	52 College Students with ASD	4-year
Sayman (2015)	Semi-Structured Interviews	1 College Student with ASD	4-year
Hillier et al. (2018)	Assessments Followed by Focus Groups	52 College Students Registered with ASD	4-year

Note. - equals studies in which the item was not applicable

Table 3*Summary of Codes: Accommodations Reported by Students*

Authors	Academic accommodations	Housing accommodation	1:1 Support	Other
Brown (2017)	-	-	-	-
Accardo et al. (2019a)	extended time, tutoring, making modifications to testing procedure, reader/scribe, audio record, writing center, test at center	single room	faculty and professional staff mentoring program, academic coaching, social skills groups, counseling	transition program, peer mentoring, self-advocacy training
Sarrett (2017)	extended time, test at center, flex due dates, breaks during class, tech in class, note taker, clear directions, use of visuals, optional group activities	-	-	-
Bolourian et al. (2018)	extended time	mentioned, but not specified	-	-
Accardo et al. (2019b)	extended time, notes, use tech, reduced course load, audio, reader-scribe, test at center	mentioned, but not specified	academic coaching, writing center, tutoring, peer mentor, faculty mentor, weekly check ins, counseling	social skills groups, support group, counseling, summer transition programs, priority registration
Cox et al. (2017)	extended time, accommodations to meet academic needs, test at center	private housing	-	-
LeGary (2017)	extended time, test at center, flex due dates, breaks during class, tech in class, note taker	mentioned, but not specified, rules in hallways, posted schedules	-	-
Van et al. (2014)	extended time, test at center, note-taker, short breaks in class	-	scheduled staff support, individual ASD program for skills group	-
Sayman (2015)	calculator and colored paper	-	Not college supported tutor-personally hired, vocational rehab assist	-
Hillier et al. (2018)	-	-	scheduled staff connections support	-

Note. - equals studies in which the item was not applicable

Table 4*Summary of Codes: Services Reported by Faculty*

Authors	Academic accommodations	Housing accommodations	1:1 Support	Other
Brown (2017)	reasonable accommodations with academic focus, note-taker, audio recording, extending time, alternate testing location	single residence: with and without price reduction	-	priority registration, peer-mentoring- noting correlation and higher use with students with ASD, sensory rooms, social limitations, ASD-specific services, specific accommodations to support students' functional limitations
Accardo et al. (2019a)	-	-	-	-
Sarrett (2017)	-	-	-	-
Bolourian et al. (2018)	-	-	-	-
Accardo et al. (2019b)	-	-	-	-
Cox et al. (2017)	-	-	-	-
LeGary (2017)	-	-	-	-
Van et al. (2014)	-	-	-	-
Sayman (2015)	-	-	-	-
Hillier et al. (2018)	-	-	-	-

Note. - equals studies in which the item was not applicable

Table 5*Summary of Codes: What students wish they had*

Authors	Academic	Other
Brown (2017)	-	-
Accardo et al. (2019a)	professors to have professional dev to work with students with ASD, note-takers	-
Sarrett (2017)	written directions	support program for their ASD population, sensory accommodations, better awareness, reduced course load, a community that was more "autism friendly", neurodiverse space
Bolourian et al. (2018)	-	coaching, career counseling, training in interview processes, and interpersonal skills instruction awareness from faculty,
Accardo et al. (2019b)	additional courses specific to disability, flex attendance, alternative assessments	support counseling, awareness/inclusion club, mental health supports, Special Olympics (4887), clubs specific to disability, service animal
Cox et al. (2017)	-	-
LeGary (2017)	-	institutional supports
Van et al. (2014)	-	social supports groups
Sayman (2015)	-	-
Hillier et al. (2018)	-	-

Note. - equals studies in which the item was not applicable

Table 6*Summary of Codes: What Students Find Most Helpful*

Authors	Other
Brown (2017)	extra time, copy of notes from professor, priority registration, academic coaching, tutoring, transition program, writing center
Accardo et al. (2019a)	-
Sarrett (2017)	-
Bolourian et al. (2018)	-
Accardo et al. (2019b)	-
Cox et al. (2017)	-
LeGary (2017)	-
Van et al. (2014)	-
Sayman (2015)	-
Hillier et al. (2018)	individual instruction from staff, schedules, assistance learning social skills

Note. - equals studies in which the item was not applicable

Table 7*Summary of Codes: Difficulties*

Authors	Difficulties surrounding college students with ASD as reported in literature review	Difficulties surrounding college students with ASD as reported in ending	Difficulties surrounding college students with ASD as reported by results
Brown (2017)	lower success rate in college, fewer than 40%, communication and social interaction, handling structure of a routine, faculty not accommodating, managing other conditions	Navigating testing	-
Accardo et al. (2019a)	have lower rates of employment; feeling overwhelmed in the classroom; sensitivities enhance difficulties; managing executive functioning, balancing stimulating tasks, nonverbal communication, socialization, isolation/loneliness	-	-
Sarrett (2017)	lower graduation rates, lower rates of post grad employment, self-advocacy, maintaining friendships, participating in social events, sensitivity	-	-
Bolourian et al. (2018)	social and academic functioning, need additional supports for typical features in ASD, low graduation rate, social interactions, course load, timed quizzes, navigating social demands, socializing in classroom, managing time, finding study groups	-	-
Accardo et al. (2019b)	executive and social functioning, generalizing skills to variety of settings, anxiety, loneliness and depression, stress, mental health needs, unexpected changes, processing information, managing time, disclosing diagnosis, self-determination, thoughts that university won't be able to provide appropriate supports to assist, hesitation to disclose information, social relationships	lack of financial resources, lack of self-awareness, mental health awareness	finance, mental health (anxiety, stress, depression, fear, self-esteem), faculty doesn't understand flexibility, social challenges, not clear in lectures, lack of self-awareness in disability (lack of knowledge of skills needed and not getting accommodations) not getting help when asked.
Cox et al. (2017)	group work, social, emotional, independent-living, self-advocacy, communication, reading instructors nonverbal cues, executive functioning, anxiety, depression, graduation rates	-	Disclosure with faculty and roommates
LeGary (2017)	social demands and academic activity demands, graduation rates, communication, self-advocacy	-	-
Van et al. (2014)	graduation and employment rates, social skills, nonacademic verbal skills, group work	-	-
Sayman (2015)	dropping out of college, disclosure of disability, "difficulty navigating process, training on advocacy, reluctance to appear different" 81. lack of understanding and training from faculty/staff	only conclusion: higher ed needs to be more inclusive and	difficulty understanding her disability, organization,

		supportive to students with disabilities. need for more contextual accommodations for students with ASD	submitting assignments on time, not motivated if task isn't right in front of her, difficulty interpreting social skills, conversing with peers, professors see her as different or defective
Hillier et al. (2018)	employment, lack of independent living/social isolation. no supports that are specifically helpful, communication, executive functioning, emotional, advocacy, sensory, anxiety and stress increases, retention rates, loneliness, lack of knowledge of ASD by staff	social demands outside of classroom, working in classroom, increased stress and how to manage	-

Note. - equals studies in which the item was not applicable

Table 8
Summary of Themes: Demographic Information- Director

Participant	Number of years in position	Years working with students with autism
Ashley	2	10
Brent	2	10
Amanda	3	10
Maggie	9	20+
Jon	1	20
Rusty	7	14
Tripp	10	20

Note. - equals studies in which the item was not applicable

Table 9*Summary of Themes: Demographic Information- University*

Participant	Size of university	University autism program	Increase in number of students registering with autism	Type of university
Ashley	14,903	yes	yes	public
Brent	34,937	no	yes	private
Amanda	33,648	yes	yes	public
Maggie	29,355	no	yes	public
Jon	21,219	no	yes	public
Rusty	32,140	yes	yes	public
Tripp	69,320	yes	yes	public

Note. - equals studies in which the item was not applicable

Table 10*Summary of Themes: Registration Information*

Participant	How to register	Implementing in class	Contact with student	Documentation requirement
Ashley	Online application, intake session	Letters sent from accommodation center to professors	Student led, as much as they ask for, faculty can reach out on behalf of student	Not needed, meet them where they are at, looking for enough history to register
Brent	Set up appointment, provide documentation, accommodation appointment	Student sends letter to professors they want accommodations in their class	Renew accommodations through online formatting each semester	Necessary for registration
Amanda	Set up appointment, interactive conversation to best determine accommodations	Accommodation letters sent to student professors by the resource center	Encourage students to speak with professors and contact resource center when needed	Encouraged, but not necessary as to remove a barrier from receiving accommodations; AHEAD guidelines
Maggie	Online application through disability management software, meeting with center staff	Students select which approved accommodations they want for each individual semester class through the software	Minimum of one appointment, encourage staff follow-ups, facility coaching program with regular meetings with access specialist	IEP, documentation from a professional qualified to diagnose ASD
Jon	Online application, submit documentation, schedule an intake appointment	Burden on student to inform professors of their accommodations	intake appointment, very little contact, can reach out anytime	Documentation to provide verification for information provided on online application
Rusty	Expedited and standard process, both on website. Expedited for ET on test and reduced testing environment, standard access plan meeting	Fill out accommodation requests each semester on online database, letter sent to each professor generated from database	Not enough staff to follow-up as much as they would like, rely on students' self-advocacy to reach out anytime	Documentation tertiary, self-reporting from student primary, staff observations secondary; required
Tripp	Complete an application, intake appointment, establish approved accommodations	Accommodation letter goes out to faculty	First meeting, reach out via phone or email with any additional questions or requests throughout the semester	Utilize documentation as necessary

Note. - equals studies in which the item was not applicable

Table 11*Summary of Themes: Accommodations Offered*

Participant	Most common	Least common	Housing	Accommodations out of the classroom
Ashely	Extended time on exam and quiz, note taker, reduced distraction environment, mentoring program, concrete instructions, guidance on assignments	Permission to leave class early, flexible attendance	Limited roommates, single housing	Academic coaches
Brent	Extended time on exam and quiz, reduced distraction environment, flexibility on some deadlines	-	Private room	Autism group out of counseling center, discussions on campus about setting aside rooms for students
Amanda	Extended time on exam and quiz, flexibility regarding deadlines	Preferential seating, changing format of exams, not requiring group assignments, no overhead lighting, lamps in classroom	Private room	assistive technology resource center
Maggie	Extended time on exam and quiz, note taker, reduced distraction environment	Weekly appointment	Single room, specific residence hall, dining accommodations	-
Jon	Extended time on exam and quiz, note taker, reduced distraction environment	-	Single room, priority enrollment in housing, emotional support animals	Provide a better network of support
Rusty	Extended time on exam and quiz, recording lecture, breaks during class, breaks during exam	Not working in groups, not giving presentations, private testing	Single room, semi-private room, emotional support animal	Meetings as needed with DRC staff
Tripp	Extended time on exam and quiz, flexibility in attendance, utilizing e-text, note taking technology	-	Single room	CARES program through state, autism group through counseling center

Note. - equals studies in which the item was not applicable

Figure 1:
Screening Selection

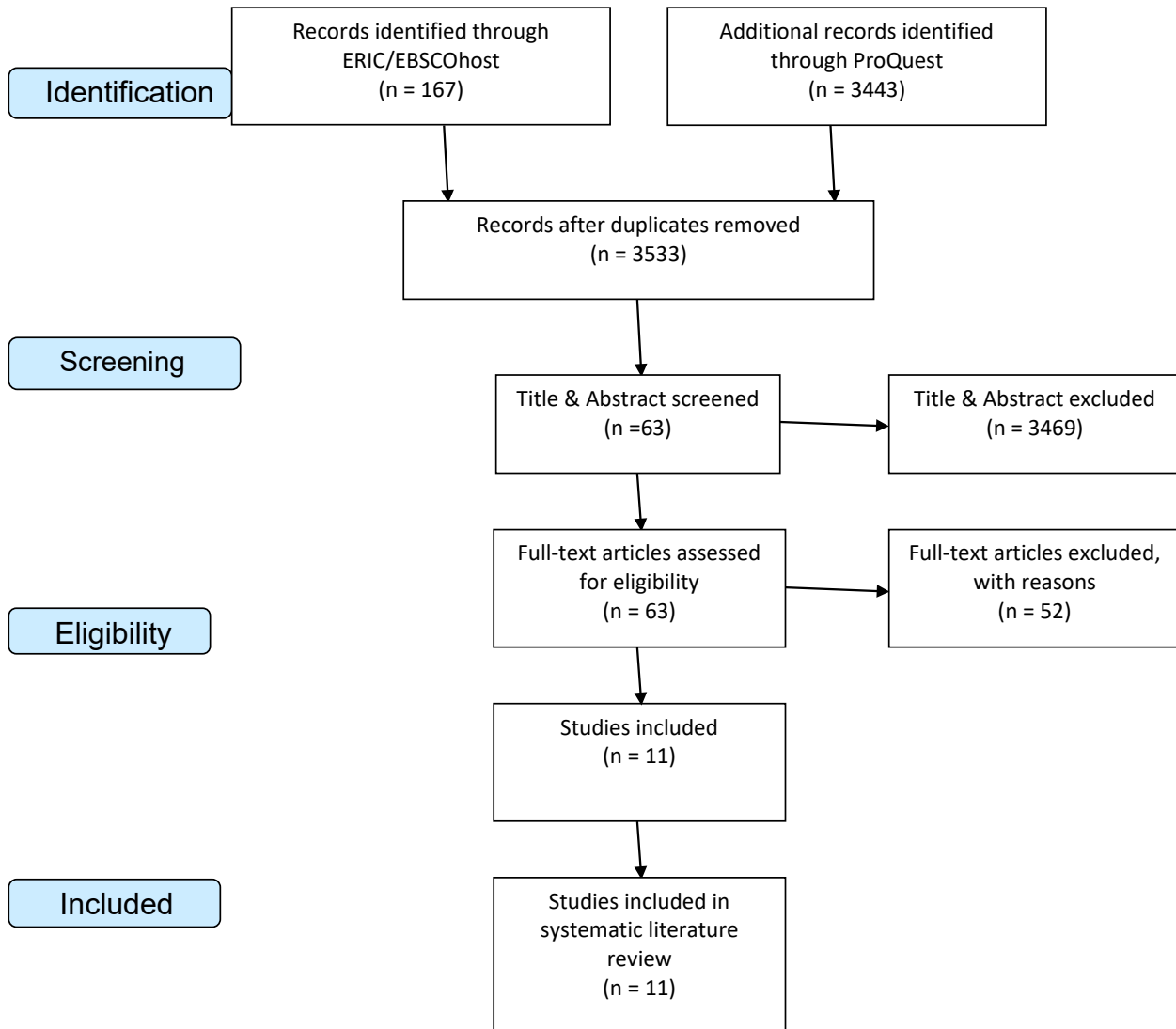


Figure 2

Interview Protocol

Interviews. Resources for Students with ASD T.Knooihuizen taylor.knooihuizen@ou.edu

Introduction.

Thank you for taking the time to talk with me today. I (Knooihuizen) am so excited to have you joining me to talk about your experience as a director of a disability resource center at your university. This interview is expected to last between 45-60 minutes. Once we talk for 30 minutes, I'll check in to see how you're feeling about continuing. I want to remind you that participation in this interview is completely voluntary, and at any time you can decide not to answer a question, or even choose to end the interview, without any repercussions of any kind. I also want to say that once the interviews are completed with all participants, I will be de-identifying the data – this means we will remove your name and any identifying information from the transcript – such as school names or names of any people you mention or describe. Participation in this study is confidential, and what you say in this interview will be kept confidential until de-identified for analytic and writing purposes. I am going to be recording this zoom conversation and using closed captioning.

Before we begin, I need to confirm, did you complete the online consent process and the accompanying survey? Ok, great.

Do you have any questions about the interview process?

(1) To get us started, I'm interested to know how long you've worked in your current role, and how you came to your current position.

- Tell me more about why you decided to move into disability services in higher education.
- What did you do before you moved into this position?

(2) What is the enrollment process for students with ASD in order to receive accommodations at your university?

- What documentation do you accept and who is involved in that process?
- How are professors alerted to accommodations required in their classrooms?

(3) How are determinations made as to what accommodations are approved?

- Tell me about the “standard accommodations” and how they are similar among other disabilities.
- Describe to me how students usually interact through this introductory meeting.

(4) What are the initial steps in helping a student with ASD advocate for themselves on campus?

- How do you create equal access inside of the classroom?
- How do you create equal access outside of the classroom through the extracurricular activities the university sponsors?

Halfway.

Now that we are 30 minutes into our conversation, do you have any hesitation on continuing this conversation for the remainder of our allotted time? Ok, great.

(5) In an ideal world, what would accommodations and supports look like at your university?

- How would students be able to find their areas of peace and consistency on campus?
- How would you set it up to promote independence and the self-advocacy needed for after graduation?

(6) What services could the university be providing to better support the emotional and social supports for their student population with ASD?

- Would these supports fall under the disability resource center or another area on campus?
- What would those supports look like?

(7) What areas of need do you recognize with your students registered with ASD that are not being supported through your center?

- How would you like to address those areas of need if funding was of no concern?

Closing.

This has been an insightful conversation. I'd like to end by asking you what kind of support you feel like you need as we wrap up our time today.

(8) What else would you like to talk about today?

- Do you have any questions for me?
- Would you be willing to talk with me again via email or a shorter follow-up interview?

I want to thank you again for talking with me. Thank you for sharing your experience. What you've shared is so valuable for our profession to understand. By sharing your expertise and experience you are providing a window into how you are accommodating your college students

with ASD at your university and how they could ideally be served. Thank you so much for your time.

Figure 3

Summary of Themes: Difficulties Surrounding College Students with ASD

Participant	University culture and understanding
Ashley	Universal Design, Disability Awareness Week, having disability committees in every university sponsored event to encourage accessibility and inclusion
Brent	Discussions on campus about designating autism friendly spaces, being able to communicate and get help with the rigors of the university setting, working toward eliminating stereotypical assumptions, universal design
Amanda	Putting importance of creating an environment to promote success, pandemic brought good flexibility and adaptability, not a good culture of accountability, focused on rights and responsibilities of students- not inclusion, universal design
Maggie	The academy is designed as an ableist environment
Jon	Faculty can reach out to disability resource center for support on student with disability exhibiting challenging behavior, doesn't have the staffing, students don't have a sense of belonging or place
Rusty	University needs to be more proactive and offering free 1:1 academic coaching, peer mentors help with inclusion on campus
Tripp	Setting up spaces during university sponsored events for their students with disabilities

Note. - equals studies in which the item was not applicable

Figure 4

Summary of Themes: Difficulties Surrounding College Students with ASD

Participant	Self-Advocacy
Ashley	Students are not ready to enter college, don't have the skills to advocate for themselves yet
Brent	Let students decide the level of support they need, but not all students are prepared to advocate for themselves to get the help that they need, being able to get tested to obtain the ASD diagnosis
Amanda	The students who need help are not always the ones that show up and ask for help, a lot of students are not "college ready" to be able to operate independently
Maggie	A welcoming environment is not created, and students are not prepared to advocate in a new environment
Jon	Students are not prepared to be in college setting and advocate for themselves
Rusty	Students unaware of how to advocate for their individual needs
Tripp	Students have a need but aren't advocating for them independently, students need a DRC coordinator to help drive the self-advocacy piece, higher education is supposed to yield higher self-advocacy from students

Note. - equals studies in which the item was not applicable

Figure 5***Summary of Themes: Difficulties Surrounding College Students with ASD***

Participant	Social Connection and Communication
Ashley	Level of vagueness from professors, communication and socialization with peers
Brent	Appropriate communication with professors and peers, appropriate amount of time spent asking questions in class, overstimulation for students, managing time to keep up with academic and social demands of university, roommate issues, professor issues, classroom issues
Amanda	Effects of the pandemic made socialization and communication more challenging for students
Maggie	Not enough support staff at DRC to be able to address all the students as frequently as they need
Jon	Students revert in times of stress to what is familiar and that lends towards isolation, lack of a sense of community, building a community of peers on campus, atypical behaviors
Rusty	Social behaviors and obvious coping skills
Tripp	Concerns about the social aspects and being connected socially on campus, feeling overwhelmed on campus

Note. - equals studies in which the item was not applicable

Figure 6***Summary of Themes: Difficulties Surrounding College Students with ASD***

Participant	Trainings on Campus
Ashley	Educate via email to faculty and student body
Brent	-
Amanda	Working on incentivizing faculty toward compliance, being trauma informed facilities
Maggie	Educates the campus community of the needs of the diverse students, promoting universal design for learning, pandemic shifts to Zoom were helpful for students, campus is not designed for students with disabilities, needs to do a better job, needs to require CTE trainings for faculty
Jon	Communicating with advisors so they can more effectively able to communicate with students with autism, training on campus for faculty and staff
Rusty	-
Tripp	Trainings for local high school counselors to help students prepare for the transition to higher education

Note. - equals studies in which the item was not applicable

Figure 7***Summary of Themes: Difficulties Surrounding College Students with ASD***

Participant	Workforce and Employment
Ashley	Being prepared to function in a job setting, socializing with coworkers and effective communication with team, lack of transition supports to the workforce
Brent	Not explicitly taught job skills in university, are not prepared to be their own advocate and work well in an employment setting
Amanda	-
Maggie	Students are not always ready after graduation to enter a place of employment
Jon	Students are not prepared for post-graduation responsibilities
Rusty	Getting acclimated to the social requirements for employment, a large barrier employment after graduation
Tripp	Staff unsure if students are ready for employment, worries if students will be getting the kind of supports that they need in the workplace

Note. - equals studies in which the item was not applicable

Figure 8***Summary of Themes: Difficulties Surrounding College Students with ASD***

Participant	How to Target Barriers
Ashley	Enhancing an established Disability Awareness Week, increase communication among faculty and students, having a mentor to be able to advocate on behalf of student with professors each semester, every department working “beyond their boxes”
Brent	K-12 doing a better job of transitioning their students, transition services, increase of support staff in DRC and counseling centers, accurately identifying and meeting the need of each student, making student resources more known to this population, encourage parents to let students' self-advocate
Amanda	Universal design for learning, giving students options of how they want to be addressed, need to be a better transition planning system in K-12 to prepare students for college, no building on campus having fluorescent lighting, dimmable soft lighting, university giving grace to students, not stereotyping or typecasting students, letting students with ASD control their stories
Maggie	Having a designated student center for students with disabilities, intentionally being more inclusive when campus is designing events, campus partners to help coordinate a broader campaign for awareness, increasing budgets for disability resource centers
Jon	A program designated for students with autism, developing a community of supports, a culture that supports, being able to provide more contact with a population that nurtures or cultivates better understanding
Rusty	University embracing universal design, need for free academic coaching, more intentional from university interactions with students with autism
Tripp	Getting more feedback from the students, having a greater understanding for these students, having a balance that these individuals are expected to meet the social norms in the classrooms and accepting their different experiences, managing expectations as a university with patience and understanding

Note. - equals studies in which the item was not applicable