

A SURVEY OF COLLEGE FACULTY'S, STAFF'S, AND ADMINISTRATION'S
KNOWLEDGE OF AUTISM SPECTRUM DISORDER

by

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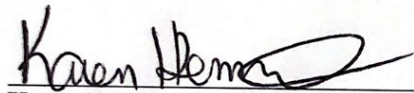
A Thesis for the Degree


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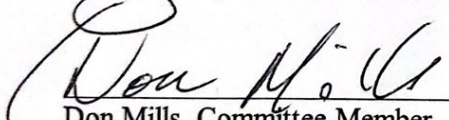
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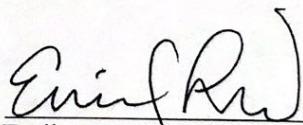
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Introduction

Autism spectrum disorder (ASD) is a growing developmental disorder characterized by persistent problems in social interaction and communication across a wide range of activities (Diagnostic Statistical Manual-5th edition (DSM-5), 2013). Individuals with ASD also experience repetitive and stereotyped behaviors, limited interests, and activities and have difficulty with social communication (Rice, Warren, & Betz, 2005; DSM-5, 2013). Recently, there has been more attention and discussion about ASD as the reported prevalence increases and what this means for the lives of individuals with ASD, especially adults with ASD. Adults with ASD face many challenges that may greatly impact their outcomes in life; however there is a limited body of research on adults with ASD as the majority of research is focused on children.

Research shows that more adults with ASD are attending college; however, many are not graduating, and those who do graduate often take longer than their peers to finish their degree. In 2015, approximately 49,000 students with ASD graduated high school, and of those approximately 16,000 pursued post-secondary education (Wei, Wagner, Hudson, Yu & Javitz, 2016). A small-scale study on outcomes of individuals with ASD in adulthood found that 30% of participants attended post-secondary education; however, none of them finished with a degree (Eaves & Ho, 2008). This raises the question of why adults with ASD are not completing their post-secondary education.

One area to consider is the availability and ease of obtaining accommodations from secondary to post-secondary education. Throughout elementary school and high school all individuals with disabilities' education is governed by the Individuals with Disabilities Education Act (IDEA) (IDEA, Pub.L.101-476). This ensures that students with disabilities have the opportunity to receive a free appropriate public education. Infants through 21 year old's

diagnosed with a disability defined by the Americans With Disabilities Act (ADA) or state regulations are given the accommodation and support they need in order to be successful in their education (Ferris State University, 2019). Students with disability in secondary education may learn about self-advocacy; however, they may not have to self-advocate. In contrast, receiving services in post-secondary education is not automatic and a student must self-advocate and/or disclose their disability to receive accommodations. Post-secondary students are no longer covered by IDEA, instead they are governed by Section 504 of the Rehabilitation Act of 1973, which guarantees that those with disabilities are not excluded from participating in activities; however, it does not always guarantee accommodations for education (Ferris State University, 2019).

If students with ASD are attending post-secondary education more than in the past, it is important that faculty, staff, and administrators have knowledge about ASD to provide appropriate accommodations so that students with ASD complete their degree successfully. More information is necessary about how students with ASD are supported at institutes of higher education. Thus, the purpose of the current study is to gather information about faculty, staff, and administrations' knowledge of ASD, how they support students with ASD, and how satisfied they are with the accommodations they provide to students with ASD.

Knowledge of ASD

Previous research has focused on students' and faculty's knowledge of ASD and where this knowledge comes from. One of the first studies on knowledge of ASD compared the knowledge and beliefs of clinical psychology, pediatrics, school psychology and speech language pathology to ASD specialists (Stone, 1986). The ASD specialist's answers reflected that of the recent research while the other disciplines had a number of misconceptions about social, emotional, and

cognitive aspects of ASD (Stone, 1986). The original study (Stone, 1986) was expanded on to include health care professions in three groups, doctors, specialists (e.g., psychiatrists and speech language pathologists), and ASD specialists (Heidgerken, Geffken, Modi & Frakey, 2005). This study showed that the three groups shared similar knowledge of ASD, however the specialists and doctors had differing beliefs about what individuals with ASD are able to do and held outdated beliefs (Heidgerken, Geffken, Modi & Frakey, 2005).

To further the body of knowledge on health care providers, Freedman (2014) gathered information about undergraduate students in health care careers to determine what knowledge of ASD they had prior to entering the workforce or graduate school. Freedman (2014) found that the questions with the highest accuracy included typical characteristics of ASD, etiology and treatment options. However, knowledge of the incidence of ASD, the ability for a student with ASD to attend public school and the incidence in low socioeconomic populations was limited. The student's level of education did not influence their knowledge of ASD, but knowledge did increase based on the number of individuals with ASD the participant knew (Freedman, 2014).

Tipton-Blacher (2013) gathered information about students', faculty's and staff's knowledge of ASD and whether knowledge increases when there is a direct relationship with a person with ASD. They found that respondents with ASD or with a direct family member with ASD scored higher on the survey when compared to respondents that did not have ASD and did not have a family member with ASD (Tipton-Blacher, 2013). Beyond the knowledge of faculty and students there is limited data and research available about the knowledge of administrators, the accommodations being offered to students with ASD or on why students with ASD in higher education are not graduating with degrees.

Post-secondary Outcomes in ASD

Each year in the United States an estimated 50,000 children who are diagnosed with ASD will turn 18 (Shattuck, et. al., 2012). As stated previously, about 16,000 of those will attend a post-secondary institution (Wei, Wagner, Hudson, Yu & Javitz, 2016). Students with ASD who do enroll in post-secondary institution have documented difficulty completing their degree or certification. A longitudinal study of 73 individuals with ASD found that only 8 graduated from an institute of higher education with a degree (Taylor, Henninger & Mailick 2015). The lack of education/degree may create challenges for the aging adult with ASD (Taylor, Henninger & Mailick 2015). In a society that values higher education, individuals without a degree have fewer employment opportunities and lower median wage, regardless of disability status (“Learn More, Earn More,” 2020).

The communication needs of adults with ASD differ from that of the neurotypical adult. While most adults are comfortable with face-to-face communication, adults with ASD have different communication preferences. Some feel more confident communicating in writing because it allows them to think through their response, while others feel that it is easier to communicate in person if the other individual initiates the conversation (Cummins, Pallicano, & Crane, 2020). Due to the unique presentation of ASD in each individual, it is difficult to fully express the communication challenges and successes, as well as the accommodations needed. Generally, individuals with ASD note that they require social communication support in a variety of contexts, especially in a new or unfamiliar setting like a job interview or beginning a romantic relationship (Cummins, Pallicano, & Crane, 2020). Without personalized and societal support, adults with ASD may feel isolated from the lack of social interaction. This social isolation may be seen in individuals with ASD throughout the lifespan. Learning how to support individuals

with ASD's social communication after graduation from high school may help increase their success in higher education.

When comparing quality of life between adults with ASD and adults without ASD, individuals with ASD have a lower quality of life (van Heijst & Geurts, 2015). Improving quality of life and overall outcomes for adults with ASD begins with improving social, health and wellness, and academic accommodations in post-secondary education.

Accommodations and ASD

After graduating from high school and making the decision to attend college, all individuals experience a change. During K-12 parents are actively involved in their child's life, and take on the responsibility of communicating with teachers, the school and advocating for their child. As a young adult attending college, the parent becomes less involved. The adult is expected to advocate for themselves, especially when it comes to disability services. Receiving disability services at an institute of higher education requires that the student disclose their disability. There is no data for how many students with ASD attend post-secondary education, and of those how many receive accommodations; however, looking at learning disabilities can provide a better understanding of who receives accommodations. Due to the nature of post-secondary education and the requirement to disclose the disability, only 17% of students with learning disabilities received accommodations in their post-secondary education compared to 94% of students with learning disabilities who received accommodations in high school ('The State of Learning Disabilities,' 2014). If we assume similar statistics to be true about students with ASD, the majority are not receiving accommodations like they previously received in high school.

The current research on accommodations offered to adults with ASD is limited. There are few accommodations being offered and the research on accommodations is focused on children

with ASD rather than adults. In a 2011 meta-analysis of supports for adults with ASD, only one (MacLeod & Green, 2009) of 23 studies researched the accommodations offered to adults for educational success (Shattuck et. al., 2012). MacLeod and Green (2009) reported that individualized accommodations were best to assist two students with ASD. The two students in this study did not originally reach out for support, identifying one challenge of accommodations in higher education.

Usually in post-secondary education, the accommodations offered are determined by the disability service staff and the individual's needs. A study of two-year community colleges found that the accommodations offered to students with ASD were focused on traditional accommodations. For example, 92% of the sample were offered a note taker, 97% were offered extended test time, and 93% were offered an alternate test location (Brown & Coomes, 2016). These institutions also offered general services including tutoring and personal and career counseling (Brown & Coomes, 2016). Browns and Coomes (2016) reported that only one-third of the institutions provided ASD specific accommodations such as sensory support. Individuals with ASD are not receiving accommodations that are individualized to their needs placing them at a disadvantage. They went from receiving specialized accommodations in high school, along with the support of their families to being required to advocate for themselves and being offered generalized accommodation like extended time.

Smith (2007) conducted a qualitative survey asking disability service staff members from 29 institutions about the level of support being offered to students with Asperger Syndrome (a term no longer used to label ASD). Smith (2007) found that among the accommodations offered, students were given flexible class attendance, housing, environmental changes, peer networking groups, a reduced course load and others. While this is a significant improvement from the

accommodations offered at the community colleges, this only encompasses 29 universities and the staff at these universities noted that the current accommodations were not enough but did not recommend changes (Smith 2007). Staff stated that the students needed assistance with the social aspects of college as well as the necessary skills for employment post college.

In 2002, a compilation of essays written by higher education students with ASD was published (Prince-Hughes, 2002). The students wrote about the challenges they faced including difficulty with social interactions, peer interactions and rejection, and sensory issues (Prince-Hughes, 2002). These difficulties highlight only some of what students with ASD in higher education face on a daily basis. An additional study asked faculty members about their interactions with students with ASD to gather information about the strengths and weaknesses of students with ASD in the classroom (Gobbo & Shmulsky, 2014). They found that students with ASD struggled with social skills, anxiety, and critical thinking, but faculty reported that students with ASD had passionate interests, had a desire to acquire accurate knowledge, and adhered to rules (Gobbo & Shmulsky, 2014). The accommodations being offered currently fit the legal necessity for individuals with disabilities; however, it does not take into account the unique and individual needs of students with ASD. More research is needed to understand the accommodations actually being implemented by faculty, staff and administration for students with ASD educationally, socially and mentally.

Purpose

The purpose of this study is to describe faculty's, staff's, and administrator's knowledge of Autism Spectrum Disorder (ASD) and the accommodation that is offered to students with ASD. The following research questions will be addressed: (1) Do faculty, staff, and administrators who work at institutes of higher education have knowledge of ASD? (2) What accommodation that is

approved by student support services is offered to students with ASD? (2a) What accommodation that is approved by student support services do faculty, staff, and administrators think is beneficial and not beneficial to offer to students with ASD? (3) What accommodation do faculty, staff, and administrators think should be offered to students with ASD? (4) Are faculty and administrators satisfied by the level of accommodations they offer students with ASD?

It is hypothesized that results will show that faculty, staff, and administrators have limited knowledge of ASD and offer accommodations that may not align with deficits associated with ASD. The results of this study will potentially provide evidence for changing the types of accommodations given to college students with ASD.

Method

Recruitment

This study was approved by the Institutional Review Board at Texas Christian University. Faculty, staff, and administrators at public and private institutes of higher education (colleges, universities, and community colleges) were recruited from across the country. Email addresses were obtained from websites and online directories of institutes of higher education, and the survey link was directly emailed to the faculty, staff, and administrators. The survey link was also distributed on social media platforms. A description of the study was provided in the email and social media posts. The description included the purpose of the survey, the potential participants, the length of the survey and ensured anonymity for those completing the survey. Following the original distribution and posts, reminder messages were sent.

Due to time restraints because of COVID-19, a pilot-study was not completed prior to official distribution. However, after initial distribution a survey respondent informed the research

team via email that one question called for a multiple answer response, but the survey did not allow for multiple selections to be made. This question was modified before continued distribution.

Survey

The survey began with a binary consent to participate. If consent was given, the survey continued. If consent was not given, the survey terminated. Definitions (See Appendix A) for institutes of higher education, faculty, staff, and administrators were provided to ensure the participant was qualified to participate in the study. The survey consisted of four sections and began with 18 demographic questions regarding employment position, number of years employed at an institute of higher education, location of institute of higher education and type of institute of higher education. This section also included questions about the participants' personal relationship with ASD such as asking the number of individuals the participant knows with ASD, if the participant teaches about ASD, and if the participant has had a student with ASD. Included in this section were 3 free-response questions, and 15 multiple choice and select all that apply responses.

The following section consisted of 13 questions regarding the participants background knowledge of ASD. This section included rating statements about ASD, multiple choice questions regarding prevalence and one fill in the blank question. The questions in this section were modified from Freedman's (2014) study on undergraduate students in health care careers knowledge of ASD.

The third section consisted of 7 questions regarding the level of accommodations provided to students with ASD. The questions presented to the participant varied depending on their position as faculty, staff, or administrator. There were 3 multiple choice responses regarding the

accommodations offered at the participants institute of higher education for students with ASD, as well as the training and education of faculty, staff, and administrators to support students with ASD. The remaining questions in this section asked the participant to select all that apply to answer what accommodations were offered at their institution as described by disability services, the accommodations they believed to be beneficial and the accommodations they believed to be not beneficial for students with ASD.

The final section asked participants to rate their satisfaction with the level of accommodations offered to students with ASD at their institution. Definitions (see Appendix B) of the types of accommodations were given at the beginning of the section. There were 4 statements regarding the level of accommodations. The first stated that the participant felt the overall accommodation they provided was adequate and the remaining statements consisted of the satisfaction of academic, social, and health and wellness accommodations.

Participants

Four-hundred and fifty-one faculty, staff, and administrators from institutes of higher education opened the survey but completed survey data was recorded from 384 participants, yielding an 85% completion rate. Sixty percent of participants worked for a public institute of higher education and the remaining 40% worked for a private institute of higher education. Of the faculty, staff, and administrators who completed the survey, 89% were faculty who worked in academic areas, while 11% worked in non-academic positions. The participants work experience in an institute of higher education ranged from 3 months to 44 years. See Table 1 for additional demographic information.

The remaining demographic questions discussed participants' potential interactions with students with ASD. Sixty-two percent of faculty and administrators said their courses did not

include information about ASD. Participants who identified their role in the institute of higher education as staff, did not answer questions regarding teaching a course. Only 20.3% of faculty and administrators discussed ASD in their courses. Twenty-seven percent of participants knowledge of ASD was obtained through either social media, books, television, or movies. Twenty-seven percent of participants selected to write in their answer. These answers ranged from participants whose knowledge was obtained from their own ASD diagnosis, family members or close friends with ASD, conferences and research work, trainings, as well as professional practice in health care fields. Twenty-eight percent of participants neither agreed nor disagreed that they were prepared to instruct or interact with students with ASD. Sixty-six percent of participants have never had a student disclose their ASD diagnosis. Of the 34.1% who had a student disclose their diagnosis, 96.9% offered accommodations. 72.4% of participants have suspected a student to have ASD. See Table 2 below for additional information.

Table 1
Participants Demographic Information

		Percent
<i>Position</i>	Full time faculty	65.5%
	Part time (adjunct) faculty	19.2%
	Staff	5.4%
	Administrator	9.6%
	Did not report	0.2%
<i>Rank</i>	Assistant	28.8%
	Full	25.1%
	Associate	22.9%
	Did not report or staff	23.1%
<i>Field of Study</i>	Humanities and Sciences	25.9%
	Health Sciences and Human Performances	18.0%
	Business/Economics	11.6%
	Education	10.6%
	Engineering	7.6%

<i>Region</i>	Communications	5.2%
	Fine Arts	4.4%
	Music	2.5%
	Computer Science and Technology	2.0%
	University Responsibilities	11.8%
	Did not report	0.5%
	Southwest	39.7%
	Rocky Mountains	17.2%
	Great Lakes	12.8%
	Southeast	12.3%
	West	8.4%
	Northeast	7.1%
	Plains	2.2%
	Did not report	0.2%
<i>Gender</i>	Female	66.1%
	Male	30.5%
	Other	1.3%
	Did not respond	2.1%

Table 2
Participants Background with ASD

		Percent
<i>Teach Courses about ASD</i>	No	62.2%
	Yes	11.5%
	I did not teach any courses last year	7.6%
	Staff/No response	18.8%
<i>Discuss ASD in class</i>	No	53.3%
	Yes	20.3%
	I did not teach any courses last year	7.3%
	Staff/No response	18.8%
<i>Knowledge of ASD</i>	Media (social media, television, books, movies)	27.3%
	Other	26.6%
	A close friend or family member diagnosed with ASD	20.3%
	Read about ASD (online or in textbooks)	14.1%

	Work or interact with students with ASD	7.8%
	Conversation with colleagues	3.9%
<i>How many individuals with ASD does the participant know</i>	0	12.2%
	1-3	56.5%
	4-6	18.2%
	7+	12.8%
	Did not respond	0.3%
<i>Prepared (from formal education or experiences) to instruct and interact with students with ASD</i>	Strongly agree	9.9%
	Agree	21.9%
	Somewhat agree	27.9%
	Neither agree nor disagree	7.3%
	Somewhat disagree	14.8%
	Disagree	10.4%
	Strongly disagree	7.8%
<i>Has a student disclosed having ASD to you</i>	Yes	34.1%
	No	65.9%
<i>Area of support provided</i>	Academic	21.4%
	Social	4.7%
	Health and Wellness	3.6%
	Other	3.1%
	Did not provide support due to not having a student disclose	67.2%
<i>Suspected a student to have ASD</i>	Yes	72.4%
	No	27.3%
	Did not respond	0.3%

Analysis

The data were analyzed using a mixed method approach by using quantitative analysis (descriptive statistics) and qualitative analysis. Descriptive statistics were used for research question number 1 and 4 to analyze knowledge and satisfaction.

To answer questions 2, 2a, and 3, a frequency count was completed to determine the accommodation provided to students; the accommodations faculty, staff, and administrators

found beneficial; the accommodations they found not beneficial, and the accommodations they think should be offered to students with ASD. Questions 2 and 2a were completed with a frequency count on Excel. A blind rater was used to determine reliability for the frequency counts for question 3, due to the check all that apply. The blind rater was an undergraduate student who did not see the whole data set and did not know the research questions or the study taking place. The blind rater was trained via email and performed the frequency count independently of the first author. The blind rater and first author were 100% in agreement.

Results

(1) Do faculty, staff, and administrators who work at institutes of higher education have knowledge of ASD?

There were 14 knowledge questions included on the survey; however, question number 34 was removed from the analysis. The question asked participants to rate if they agreed that older fathers with younger mothers have a higher risk of having a child with ASD. The research on this topic is inconclusive leading the researchers to omit the question from analysis. Also, several knowledge questions were worded in which participants were asked to rate the degree with which they agreed with a given knowledge statement. To calculate the total knowledge score, a predetermined cutoff was created. For example, for the statement, ‘Individuals with ASD can and do attend institutes of higher education’ both strongly agree and somewhat agree were included as correct.

The total level of knowledge was calculated for all participants and broken down by position within the institute of higher education. Three hundred and eighty-four participants completed the survey; however, only 371 participants responded to all knowledge questions. The total

knowledge of all participants was 77.3%. The percent of knowledge questions answered correctly did not change greatly between participant positions. See Table 3 below.

Table 3
Total knowledge % correct

	Percent
<i>Full time faculty</i>	77.5%
<i>Part time (adjunct) faculty</i>	78.4%
<i>Staff</i>	76.1%
<i>Administrator</i>	78%
<i>All Participants</i>	77.3%

To provide more detailed information about how participants responded to question that required a rating scale, percentage of each response is reported in Table 4.

Table 4
Knowledge questions

Q23		Percent
<i>Individuals with ASD can and do attend institutes of higher education.</i>	Strongly agree	88.3%
	Somewhat agree	9.4%
	Neither agree nor disagree	.8%
	Somewhat disagree	.8%
	Strongly disagree	.8%
Q24		
<i>All children and adolescents with ASD have poor outcomes as adults.</i>	Strongly disagree	80.7%
	Somewhat disagree	12.8%
	Neither agree nor disagree	3.9%
	Somewhat agree	2.1%
	Strongly agree	.5%
Q25		
<i># of individuals diagnosed w ASD in US</i>	Correct	37%
	Incorrect	62%
	Did not respond	1%
Q26		
<i>At what age are the signs of ASD first able to be observed? 1-2 years</i>	Correct	54%
	Incorrect	46%
Q27		
<i>ASD is a disorder that ranges in degree from mild to severe.</i>	Strongly agree	81.5%
	Somewhat agree	13.8%
	Neither agree nor disagree	2.9%
	Somewhat disagree	1.0%
	Strongly disagree	.8%

Q28	
<i>Children with ASD are NOT allowed to attend public or private school without parents first seeking the school's permission.</i>	
	Strongly disagree 78.6%
	Somewhat disagree 14.8%
	Neither agree nor disagree 5.7%
	Somewhat agree 0%
	Strongly agree .8%
Q29	
<i>How can ASD be cured?</i>	Correct 90%
<i>There is no cure</i>	Incorrect 2%
	Other 8%
Q30	
<i>One can acquire ASD from a childhood vaccine (e.g., MMR).</i>	Strongly disagree 86.2%
	Somewhat disagree 4.9%
	Neither agree nor disagree 6.5%
	Somewhat agree 1.3%
	Strongly agree .8%
	Did not respond .3%
Q31	
<i>Which of the following is typically associated with ASD? Not being very social</i>	Correct 96%
	Incorrect 3%
	Did not respond 1%
Q32	
<i>Which gender tends to have a higher diagnostic rate of ASD? Males</i>	Correct 81%
	Incorrect 18%
Q33	
<i>Individuals with ASD tend to exhibit repetitive patterns of behavior and interest (ex: spinning the wheels on toy cars and/or isolated interest in maps).</i>	Strongly agree 33.6%
	Somewhat agree 50.0%
	Neither agree nor disagree 13.0%
	Somewhat disagree 2.9%
	Strongly disagree .5%
Q35	
<i>Mothers over 40 are ___ 2 times as likely to give birth to a child with ASD compared to mothers under 30.</i>	Correct 33%
	Incorrect 66%
Q36	
<i>Autism Spectrum Disorder (ASD) is more common in underrepresented and low socioeconomic populations in the United States.</i>	Strongly disagree 21.6%
	Somewhat disagree 27.1%
	Neither agree nor disagree 39.8%
	Somewhat agree 9.6%
	Strongly agree 1.6%
	Did not respond .3%

(2) What accommodations that are approved by student support services are offered to students with ASD?

Participants reported providing extended test time most frequently (60.4%), followed by a distraction free test area (59.4%) when offering accommodations as outlined by student support services. Fourteen percent selected “other” for accommodations and wrote in an alternative. Some indicated that they provide additional time with the instructor including weekly meetings. Others allow students with ASD to leave the classroom when overwhelmed and assistance with group projects (e.g., forming groups, assigning responsibilities, etc.). Participants also provide alternative assessments, step by step written instructions as well as recorded lectures or video lectures. See Table 5 for a full list of the accommodations commonly offered by student support services and the frequency of implementation by faculty, staff, and administrators.

Table 5

Accommodations approved by student support services

Percent is out of the 384 participants who completed the survey

Accommodation	Percent
<i>Extended test time</i>	60.4%
<i>Distraction free test area</i>	59.4%
<i>Use of technology in the classroom</i>	49.5%
<i>Flexible or extended due dates for assignments</i>	47.1%
<i>Note taker</i>	44.8%
<i>Other</i>	13.5%
<i>None</i>	2.3%
<i>Did not respond</i>	26.3%

(2a) What accommodations that are approved by student support services do faculty, staff, and administrators think are beneficial and not beneficial to offer to students with ASD?

Faculty, staff, and administrators found a distraction free test area, extended test time, use of technology in the classroom, flexible or extended due dates for assignments and a note taker, to

all be beneficial accommodations. The majority of participants believed at least some accommodation was beneficial, meaning faculty, staff, and administrators recognize that any accommodations can help. See Table 6 below for the most and least beneficial accommodations.

Table 6

Beneficial vs not beneficial accommodations

Type of Accommodations	% Beneficial	% Not Beneficial
<i>Distraction free test area</i>	60.7%	1.8%
<i>Extended test time</i>	56.5%	3.4%
<i>Use of technology in the classroom</i>	51.0%	5.5%
<i>Flexible or extended due dates for assignments</i>	50.0%	9.1%
<i>Note taker</i>	45%	8.9%
<i>Other</i>	11.7%	10.4%
<i>None</i>	0%	67.2%
<i>N/A</i>	0%	0%
<i>Did not respond</i>	32.0%	6.0%

(3) What accommodations do faculty, staff, and administrators think should be offered to students with ASD?

When given a list of accommodations proven to be beneficial for students with ASD and asked to check the accommodations that should be offered to students with ASD, faculty, staff, and administrators found peer mentor or peer support and sensory friendly spaces to be the most important. They were less likely to choose a physical fitness program or meal gatherings as accommodations that should be offered to students with ASD. See Table 7 for the complete list of results.

Table 7

Accommodations faculty, staff and administration think should be offered

Type of Accommodations	Percent
<i>Peer mentor/support</i>	84.9%
<i>Sensory friendly spaces</i>	84.6%
<i>Social skills support group</i>	82.0%
<i>Trained residence hall staff</i>	77.6%

<i>Student organizations/support group</i>	76.3%
<i>Faculty/staff/administrator mentor support</i>	74.5%
<i>Case management to help with all areas</i>	70.6%
<i>Academic coaching</i>	67.4%
<i>Counseling</i>	61.5%
<i>Classroom etiquette training</i>	55.7%
<i>Housing accommodations</i>	49.5%
<i>Emergency representative or telephone line</i>	47.9%
<i>Physical fitness program</i>	38.5%
<i>Meal gatherings</i>	30.2%
<i>Other</i>	7.0%
<i>Did not respond</i>	0.5%

Three additional questions were asked about the accommodations offered at the participants institute of higher education. Eleven percent of participants reported that their institute of higher education offered a support group for students with ASD, while 82.6% the majority of participants did not know if their institute of higher education offered a support group. When asked if their institute of higher education had training for faculty, staff, and administrators, 30.7% of participants said their institute did not. Of those 30.7%, 24.5% believed a training specific to ASD would be beneficial for their current role.

Table 8
ASD support at institute of higher education

		Percent
<i>Does your institute of higher education offer a support group for students with ASD?</i>	Yes	10.9%
	No	6.3%
	I do not know	82.6%
	Did not respond	0.3%
<i>Does your institute of higher education have training for faculty, staff, and administrators specific to ASD?</i>	Yes	7.0%
	No	30.7%
	I do not know	0.0%
	Did not respond	62.2%
<i>Do you feel a training specific to ASD would be beneficial in your role as a</i>	Yes	24.5%
	No	6.0%
	I do not know	0.0%

<i>faculty, staff or administrator?</i>	Did not respond	69.5%
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(4) Are faculty and administrators satisfied by the level of accommodations they offer students with ASD?

Faculty, staff, and administrators were asked four questions regarding their level of satisfaction. The first asked if they were satisfied with the accommodations defined and designated by disability services. Thirty-five percent of respondents were neither satisfied nor dissatisfied, 10.2 % were extremely satisfied, and 2.9% were extremely dissatisfied. The remaining three satisfaction questions asked if the respondents believed their institute of higher education provided appropriate academic, social, and health and wellness accommodations for students with ASD. These accommodations were defined before the participant answered the question and are listed in Appendix B. Overall, the majority of participants were neither satisfied or dissatisfied; however, many participants responded that they were slightly or extremely satisfied with the academic, social, and health and wellness accommodations offered rather than dissatisfied.

See Table 9 for a complete list of responses.

Table 9

Satisfaction of participants

	The support options I am able to give are adequate	My institute of higher education provides appropriate academic support for students with ASD	My institute of higher education provides appropriate social support for students with ASD	My institute of higher education provides appropriate health and wellness support for students with ASD
	Percent	Percent	Percent	Percent

<i>Extremely Satisfied</i>	10.2%	13.8%	7.0%	6.8%
<i>Slightly Satisfied</i>	33.1%	27.1%	16.1%	23.2%
<i>Neither Satisfied nor dissatisfied</i>	35.4%	40.9%	51.3%	48.2%
<i>Slightly dissatisfied</i>	15.4%	11.5%	16.4%	15.1%
<i>Extremely dissatisfied</i>	2.9%	3.4%	4.9%	2.9%
<i>Did not respond</i>	3.1%	3.4%	4.2%	3.9%

Discussion

The purpose of this study was to determine the level of knowledge faculty, staff, and administration at institutes of higher education have about ASD, the accommodations they currently offer students with ASD and their satisfaction level of the accommodation they offer.

Knowledge

Overall, the total knowledge of participants was much higher than expected and the difference between groups was lower than anticipated (see Table 4). Questions that were thought to be more challenging due to common misinformation in the media were answered correctly by the majority of participants. In the current study, 86% of participants strongly disagreed with the claim that ASD is caused by childhood vaccines. This is encouraging, showing that faculty, staff, and administration have an understanding of basic facts related to ASD. When determining the cure for ASD, 90% answered correctly that there is no cure and only 2% provided an incorrect response. The remaining 8% responded with “other” and were given the opportunity to provide their own answer. These participants listed cures including early intensive intervention, support, love, and opportunities in order to thrive, and supports to make integration into society easier. These answers do not exhibit an understanding of the question, as they are accommodation options rather than cures. Some participants stated they did not know what the

cure for ASD was and other were upset by the question, because they believed that ASD does not need to be cured. The participants emphasized that curing ASD is not the goal, rather management through interventions and celebration of neurodiversity.

Previous research has shown less knowledge of ASD, than was found in the current study. Undergraduate student's total knowledge of ASD, was 68.3% (Freedman, 2014). ASD is becoming more widely known, given the increase in prevalence, which is promising for outcomes of individuals with ASD. Previously, individuals with ASD were thought to be unable to attend institutes of higher education, and ASD was thought to be a childhood disorder (Freedman, 2014). Past research has shown that specialized disciplines working in health care had differing views on the nature of ASD. Health care specialists believed that ASD was a childhood disorder, and they did not believe that individuals with ASD could function independently in society (Stone, 1987). Today, the information obtained in the media and through research, shows that ASD is a lifelong disorder and that individuals with ASD, can and do function in society. The current study demonstrates this change in understanding of ASD as, 97.7% of participants strongly or somewhat agreed that individuals with ASD can and do attend institutes of higher education.

Accommodation

When looking at the accommodations currently offered as defined by disability services, the majority of participants offer extended test time and a distraction free test area. These results were expected as they have been found to be the most commonly given accommodations in other studies as well (Brown & Coomes, 2016). However, these results are interesting as these accommodations do not directly relate to ASD in any way. Instead, they are generalized accommodations offered to any student receiving disability services. Thirteen percent of

participants recognized their own limitations and limited knowledge of ASD stating they had not had students with ASD and were unable to determine the accommodation that the students may need. The difficulty with providing accommodations for students currently, is that academic faculty, and administration do not know the diagnosis of a student, unless that student chooses to disclose, so when they provide an accommodation, they are choosing from the pre-approved accommodations as described by disability services. Two percent of participants did not provide support. Whether this is due to not having students who require support or a decision they have made for their classroom it directly impacts students with ASD who have chosen to disclose their diagnosis in order to receive accommodations.

While the majority of participants provided typical accommodations as outlined by student disability services, some institutes of higher education and their faculty and administration provided more personalized accommodations better suited for students with ASD. Fourteen percent selected “other” for supports and were able to write in an open-ended response. The accommodations these participants offered focused on time with the instructor, whether that was in weekly meetings, additional time outside of class, or individualized consultations. The other supports offered included the ability to leave the classroom when overwhelmed, written instructions, and attendance either in person or over video. One participant also offered assistance with group activities, which could prove beneficial for students with ASD who have difficulty with social engagement.

Overall, participants found that any type of accommodation is beneficial for students with ASD. They did not believe accommodations should be withheld from students, despite 2% who did not provide accommodations to a student who disclosed their diagnosis of ASD. The highest rated beneficial accommodation was a distraction free test center. While this may help the

student with ASD by limiting distractions and noises inherent in a classroom, this is not directly related to the difficulties often experienced by students with ASD. One component of the diagnosis of ASD is persistent difficulties in social communication including the back and forth of conversation, conversation initiation, nonverbal communication, and maintaining and understanding relationships (DSM-5, 2013). Because social communication is a known component of ASD, it is an area that should be considered when supporting students with ASD. Beyond the challenge of social communication for students with ASD throughout the lifespan, learning to navigate the hidden curriculum of social norms at an institute of higher education creates a greater challenge. Accommodations, like extended test time or a note taker, may be beneficial; however, it is possible there are other accommodations that are better suited to fit students with ASD's individual needs that institutes of higher education could be providing.

For which accommodations are beneficial, many participants proposed that it depends on the individual student with ASD. Twelve percent of participants suggested that other accommodations were better suited to the needs of individuals with ASD. These participants suggested accommodations by supplying home technology, providing written directions, time to review the presentation after class, social support, counseling, sensory spaces, training for professors and support staff, alternative assessments, support on collaboration for group assignments, and a trained faculty mentor for advice. These accommodations continue to largely focus on academics with some meant for sensory and social needs. Sarrett (2018), found that students with ASD desired increased autism awareness on campus, sensory friendly spaces, disability support groups, educational practices for unique learning preferences and acceptance of self-stimulatory behavior. Offering the traditional accommodations that are considered

beneficial, like extended test time, do not help with the root cause of the challenges in higher education for students with ASD.

The participants who responded “other” when asked to list what is not beneficial reiterated that support must be individualized. One participant acknowledged that the accommodations listed in the question were designed for individuals with learning disabilities and not specialized for students with ASD. Because they were designed for students with learning disabilities, they may be beneficial for a student with ASD with a co-occurring learning disability, but less beneficial otherwise. This response highlights the difficulties with the accommodations offered by disability services as the services provided are not individualized to consider each disability and the unique needs that come with the disability.

Satisfaction

Despite suggesting alternate accommodations, the majority were satisfied with the academic, social, and health and wellness accommodations offered by their institute of higher education. This is after listing accommodations they believed should be offered including social skills support group, sensory friendly spaces, a peer mentor/support, etc., while primarily offering extended test time and a distraction free test area.

Participants were neither satisfied nor dissatisfied with the level of accommodations they are able to offer. This is in contrast to students in higher education, who reported that accommodations focused on academic needs while two primary concerns of sensory and social needs were not met (Sarrett 2018).

Limitations

This study sheds light on what faculty, staff, and administrators at institutes of higher education know about ASD, the accommodations they currently provide and how satisfied with

these accommodations they are. It opens up a conversation of how to change the accommodations offered to students with ASD. This study does not provide all of the answers of what accommodations to offer, how to best increase faculty, staff, and administrators knowledge of ASD or how to best support faculty, staff, and administrators so that they in turn can better support students with ASD.

The current study described faculty, staff, and administrator's personal experiences with ASD. 34.1% of participants have had a student disclose their diagnosis of ASD, while 72.4% have suspected a student to have ASD. This highlights a disconnect with the method of providing disability services in institutes of higher education. Faculty, staff, and administrators will be limited in the accommodations they can provide if they do not know about a student's need.

Future Directions

This data suggests that there is a need for training for faculty, staff, and administrators about ASD in students in higher education. There is the potential with training that faculty, staff, and administrators knowledge will increase and in turn the accommodations offered will be better suited for students with ASD. Following training of faculty, staff, and administrators, research should be conducted to determine if the accommodations offered are a better fit for students with ASD and if the satisfaction of faculty, staff, and administrators increases. Continued research on how to best support students with ASD in higher education should be conducted as well as additional ways to provide disability services to populations like students with ASD, who would benefit from accommodations outside of the standard accommodations given.

Conclusion

This study described faculty's, staff's, and administrator's knowledge of ASD and the accommodations offered to students with ASD attending post-secondary education. Faculty,

staff, and administrators had general knowledge of what ASD was and the necessity of accommodations for students with ASD. The accommodations offered by faculty, staff, and administrators did not align with the features and needs of students with ASD. However, participants were satisfied with the accommodations they and their institute of higher education provided. The results suggest that progress can be made in the knowledge and understanding of faculty, staff, and administrators about ASD specifically in students in higher education. Future research should be completed to determine how to educate faculty, staff, and administrators, on the implementation of individualized accommodations.

Appendix A

For the purpose of this study, an institute of higher education is defined as a non-profit institution that provides post-secondary education lasting over 2 years and includes colleges and universities that award academic degrees or professional certifications. If this definition does not reflect the institute of higher education that you work for, please exit the survey.

A faculty is an individual whose primary role is to teach academic courses and/or conduct research.

Staff is an individual whose primary role is to assist in positions outside of academics at institutes of higher education. Responsibilities and duties vary, but may include being a member of financial aid office, student development, disabilities services and others.

An administrator is an individual whose primary role is to develop and coordinate academic and student programs at institutes of higher education. Responsibilities and duties vary, but might include making curriculum choices, making decisions related to financial aid, admissions, scholarships, and student affairs, or recruiting students. Administrators may be a part of faculty or staff (e.g., director of disability services). An administrator leads other faculty and staff members.

Appendix B

Academic supports are designed to aid students with course work and other academic concerns both inside and outside the classroom.

Social supports are designed to help students make connections with their peers and on campus.

Health and wellness supports are designed to help students maintain physical, emotional, and mental wellness, as well as ensure they are comfortable in their environment.

Career supports are designed to transition students into employment by giving them the skills to obtain a job and helping them find the right path.

References

- Baio, J., Wiggins, L., Christensen, D. L., et al. (2014) Prevalence of Autism Spectrum Disorder Among Children Aged 8 Years – Autism and Developmental Disabilities Monitoring Network, 11 Sites, United States, 2014. *MMWR Surveillance Summary*. 67(6);1–23. DOI: <http://dx.doi.org/10.15585/mmwr.ss6706a1external icon>.
- Brown, K. R., & Coomes, M. D. (2016). A spectrum of support: Current and best practices for students with autism spectrum disorder (ASD) at community colleges. *Community College Journal of Research and Policy*, 40(6), 465-479.
- Brugha, T. S., McManus, S., Bankart, J., Scott, F., Purdon, S., Smith, J., ... & Meltzer, H. (2011). Epidemiology of autism spectrum disorders in adults in the community in England. *Archives of general psychiatry*, 68(5), 459-465.
- Cummins, C., Pellican, E., Crane, L. (2020). Autistic adults' views of their communication skills and needs. *International Journal Language Communication Disorders*, 55(5), 678-689.
- Diagnostic and Statistical Manual of Mental Disorders – Fifth Edition, (2013). *American Psychiatric Association*. <https://doi.org/10.1176/appi.books.9780890425596>
- Eaves L. C., Ho H. H., (2008). Young adult outcome of autism spectrum disorders. *J Autism Dev Disord*, 38(4):739–747. DOI: 10.1007/s10803-007-0441-x
- Ferris State University. (2019). *Differences between secondary and post-secondary education*. Ferris State University. <https://www.ferris.edu/RSS/disability/parents/differences.htm>
- Freedman, S. E. (2014). Knowledge of autism spectrum disorder among college students in health care disciplines. *Perspectives on Higher Issues in Education*, 17, 17-26.
- Gobbo, K., Shmulsky, S., (2014). Faculty experience with college students with autism spectrum disorders: A qualitative study of challenges and solutions. *Focus on Autism and Other Developmental Disabilities*, 29(1) 13-22.
- Heidgerken, A. D., Geffken, G., Modi, A., & Frakey, L. (2005). *Journal of Autism and Developmental Disorders*, 35(3), 323-330.
- Individuals with Disabilities Education Improvement Act (2004). *United States Code*. Pub.L. 108-446.
- Kanner, L. (1971). Follow-up study of eleven autistic children originally reported in 1943. *Journal of Autism and Childhood Schizophrenia*, 1, 119–145.
- Learn more, earn more: Education leads to higher wages, lower unemployment*, (2020). Career Outlook, U.S. Bureau of Labor Statistics. <https://www.bls.gov/careeroutlook/2020/data-on-display/education-pays.htm>

- National Center for Learning Disabilities. (2014). *The State of learning disabilities*.
<https://www.ncld.org/wp-content/uploads/2014/11/2014-State-of-LD.pdf>
- Prince-Hughes, D. (Ed.). (2002). *Aquamarine blue 5: Personal stories of college students with autism*. Athens, OH: Ohio University.
- Rice, M. L., Warren, S. F., & Betz, S., K., (2005). Language symptoms of developmental language disorders: An overview of autism, Down syndrome, fragile X, specific language impairment, and Williams syndrome. *Applied Psycholinguistics* 26, 7-27.
- Sarrett, J. C. (2018). Autism and accommodations in higher education: Insights from the autism community. *Journal of Autism and Developmental Disorders*, 48, 679-692.
- Shattuck, P. T., Narendorf, S. C., Cooper, B., Sterzing, P. R., Wagner, M., & Taylor, J. L., (2012). Postsecondary education and employment among youth with an autism spectrum disorder. *JL Pediatrics*, 129(6),1042-9.
- Shattuck, P. T., Roux, A. M., Hudson, L. E., Taylor, J. L., Maenner, M. J., & Trani, J. F. (2012). Services for adults with autism spectrum disorder. *Canadian Journal of Psychiatry*, 57(5), 284-291.
- Smith, C. P. (2007). Support Services for Students with Asperger's Syndrome in Higher Education. *College Student Journal*, 41(3), 515-531.
- Stone, W. L. (1987). Cross-disciplinary perspectives on autism. *Journal of Pediatric Psychology* 12(4), 615-630.
- Taylor, J. L., Henninger, N. A., & Mailick, M. R. (2015). Longitudinal patterns of employment and postsecondary education for adults with autism and average-range IQ. *Autism*, 19(7), 785–793.
- Tipton, L. A., & Blacher J., (2013). Brief report: Autism awareness: Views from a campus community. *J Autism Dev Disord*, 44, 477-483.
- VanBergeijk, E., Klin, A., & Volkmar, F., (2008). Supporting more able students on the autism spectrum: College and beyond. *J Autism Dev Disord*. 38,1359-1370.
- van Heijst, B. F., & Geurts, H. M. (2015). Quality of life in autism across the life span: A meta-analysis. *Autism*, 19(2), 158–167. doi:10.1177/1362361313517053
- Wei, X., Wagner, M., Hudson, L., Yu, J.W., & Javitz, H., (2016). The effect of transition planning participation and goal-setting on college enrollment among youth autism spectrum disorders. *Remedial and Special Education*, 37(1), 3-14.

Abstract

The purpose of this study was to describe faculty's, staff's, and administrator's knowledge of Autism Spectrum Disorder (ASD) and the support that is offered to students with ASD who attend an institute of higher education. Specifically, the study addressed what knowledge faculty, staff, and administrators have about ASD, what support is offered to students with ASD, what support faculty, staff, and administrators think is beneficial or not beneficial, and what support they believe should be offered. Additionally, the study aimed to determine if faculty, staff, and administrators are satisfied by the level of support they are able to offer and the supports their institutes of higher education offer. There were 451 faculty, staff, and administrators from institutes of higher education around the United States who began the survey and 384 completed the survey. The data were analyzed using descriptive statistics. The most commonly offered support by disability services was extended test time and a distraction free test area. Participants believed that some type of support, even if it was not individualized for ASD was better than not offering support. The support most recommended by faculty, staff, and administrators and not currently offered through disability services was a peer mentor and sensory friendly spaces. Participants were neither satisfied nor dissatisfied with the level of support they are able to offer. Despite suggesting alternate support options that the participants believed should be offered, the majority were satisfied with the academic, social, and health and wellness supports offered by their institute of higher education.

Autism Knowledge

Start of Block: Introduction

Q1 You are invited to participate in a research study about college students with Autism Spectrum Disorder (ASD). To participate, you must be a part time or full time faculty, staff, or administrator at an institute of higher education. This is a research study involving human subjects that has been approved by TCU Institutional Review Board. If you choose to participate, you will be asked to complete an online survey that will take approximately 15 minutes. Your participation is voluntary. Please take time to read the information below before deciding whether to take part in this research project. **What is the purpose of the research?** The purpose of the study is to gather information about staff, faculty's and administration's knowledge of Autism Spectrum Disorder (ASD) and ways they support college students with ASD. **How many people will participate in this study?** If you decide to participate in this study, you will be one of up to 2,000 participants. **What is my involvement for participating in this study?** You will take a survey consisting of multiple choice questions. **How long am I expected to be in this study for and how much of my time is required?** You are expected to take the survey one time and it will take approximately 15 minutes to complete. You may take the survey on a phone or computer. You may save your progress and return to the survey at a later time. **What are the risks to me for participating in this study and how will they be minimized?** There are minimal risks that you might experience from participating in this study. You may believe that there is a "good" or "right" answer to some survey questions, which may cause some discomfort; however, there are no "right" or "wrong" answers. We ask that you answer the questions based on what you know about ASD. **What are the benefits for participating in this study?** You will not directly benefit from participation in this study, but the information that we gather will help us learn more about college students with ASD. **Will I be compensated for participating in this study?** There will not be any compensation for participating in the study. **What is an alternative procedure(s) that I can choose instead of participating in this study?** There are no other alternatives available to you other than not taking part in this study. **How will my confidentiality be protected?** We are not gathering any identifying information and we will not download or access any IP addresses from the survey platform. **What will happen to the information collected about me after the study is over?** We may share your research data with other investigators without asking for your consent again, but it will not contain information that could directly identify you. Data will be stored for three years on a password protected hard drive. **Is my participation voluntary?** Participating in this study is voluntary. If you decide to be part of the study but change your mind, you may exit the survey at any time. You must complete 3 of the 4 survey sections for your data to be analyzed. If you exit the survey before completing 3 sections of the survey, your data will not be analyzed. **Who should I contact if I have questions regarding the study?** You can contact the primary investigators at h.feehan@tcu.edu (Hannah Feehan; graduate student) or sail@tcu.edu (Danielle Brimo; faculty mentor). **Who should I contact if I have concerns**

regarding my rights as a study participant? Dr. Dru Riddle, Chair, TCU Institutional Review Board, (817) 257-6811, d.riddle@tcu.edu; or Dr. Floyd Wormley, Associate Provost of Research, research.tcu.edu I understand what the study is about and my questions so far have been answered. I agree to take part in this study.

☐ Yes (1)

☐ No (2)

Skip To: End of Survey If You are invited to participate in a research study about college students with Autism Spectrum Di... = No

Q2 Autism Spectrum Disorder (ASD) is a developmental disability that can cause significant social, communication and behavioral challenges (CDC Data & Statistics on Autism Spectrum Disorder, 2019). Individuals with ASD may or may not have a learning disability such as dyslexia, language impairment, or attention deficit/hyperactive disorder.

Q3 For the purpose of this study, an institute of higher education is defined as a non-profit institution that provides post-secondary education lasting over 2 years and includes colleges and universities that award academic degrees or professional certifications. If this definition does not reflect the institute of higher education that you work for, please exit the survey.

End of Block: Introduction

Start of Block: Demographic Information

Q4 Please select the answer choice that best describes your responsibilities at an institute of higher education.

A faculty is an individual whose primary role is to teach academic courses and/or conduct research.

Staff is an individual whose primary role is to assist in positions outside of academics at institutes of higher education. Responsibilities and duties vary, but may include being a member of financial aid office, student development, disabilities services and others.

An administrator is an individual whose primary role is to develop and coordinate academic and student programs at institutes of higher education. Responsibilities and duties vary, but might include making curriculum choices, making decisions related to financial aid, admissions, scholarships, and student affairs, or recruiting students. Administrators lead other faculty or staff (e.g. director of disability services).

- ☐ Full-time faculty (tenure and non-tenure track) (1)
- ☐ Part time (adjunct) faculty (2)
- ☐ Staff (6)
- ☐ Administrator (e.g., Dean, Provost, Chancellor, Associate Provost, Associate Dean, Director) (4)

Display This Question:

If Please select the answer choice that best describes your responsibilities at an institute of high... != Staff

Q5 Please select the answer choice below that best describes your current rank:

- ☐ Assistant (1)
- ☐ Associate (2)
- ☐ Full (3)

Q6 Select whether your role is directly related to academic activities (e.g., Dean, Provost, Associate Dean, etc.) or non-academic activities (campus/student life, financial aid, counseling, student conduct, student disabilities/accommodation)?

- ☐ Academic (1)
- ☐ Non-academic (2)

Q7 How many years have you worked at an institute of higher education?

Q8 Select the region that best describes the location of the institute of higher education.

- ☐ West (1)
- ☐ Southwest (2)
- ☐ Rocky Mountains (3)
- ☐ Plains (4)
- ☐ Great Lakes (5)
- ☐ Southeast (6)
- ☐ Northeast (7)

Q9 Is your institute of higher education private or public?

- ☐ Private (1)
- ☐ Public (2)

Q10 What institute of higher education do you work for?

- ☐ Prefer not to answer (1)
 - ☐ Write in institute of higher education (2)
-

Q11 Select one of the following that best describes your field of study.

- ☐ Health Sciences and Human Performances (1)
 - ☐ Humanities and Sciences (2)
 - ☐ Communications (3)
 - ☐ Education (4)
 - ☐ Engineering (5)
 - ☐ Business/Economics (6)
 - ☐ Fine Arts (7)
 - ☐ Music (8)
 - ☐ Computer science/technology (9)
 - ☐ University responsibilities (Ex: Campus life, disability services, advisor) (10)
-

Q12 What is your gender?

Display This Question:

If Please select the answer choice that best describes your responsibilities at an institute of high... != Staff

Q13 In the past academic year, did you teach a course(s) that includes information about ASD?

- ☐ Yes (1)
- ☐ No (2)
- ☐ I did not teach any courses last year (3)
-

Display This Question:

If Please select the answer choice that best describes your responsibilities at an institute of high... != Staff

Q14 In the past academic year, did you or your students discuss ASD in any of the courses that you taught?

- ☐ Yes (1)
- ☐ No (2)
- ☐ I did not teach any courses last year (3)
-

Q15 Check all that apply. My information/knowledge of ASD has been acquired through the following source.

- ☐ A close friend or family member diagnosed with ASD (1)
 - ☐ Work or interact with students with ASD (2)
 - ☐ Conversation with colleagues (3)
 - ☐ Media (social media, television, books, movies) (4)
 - ☐ Read about ASD (online or in textbooks) (5)
 - ☐ Other (please specify) (6)
-

Q16 How many individuals with ASD do you know (acquaintance, friend, family)?

- ☐ 0 (1)
 - ☐ 1-3 (2)
 - ☐ 4-6 (3)
 - ☐ 7+ (4)
-

Q17 Rate the following statement: I am prepared (from my formal education or experiences) to instruct or interact with individuals with ASD.

- ☐ Strongly agree (1)
 - ☐ Agree (2)
 - ☐ Somewhat agree (3)
 - ☐ Neither agree nor disagree (4)
 - ☐ Somewhat disagree (5)
 - ☐ Disagree (6)
 - ☐ Strongly disagree (7)
-

Q18

Has a student ever disclosed to you that they have ASD?

- ☐ Yes (1)
 - ☐ No (2)
-

Display This Question:

If Has a student ever disclosed to you that they have ASD? = Yes

Q19 Did you offer that student any support?

- ☐ Yes (1)
 - ☐ No (2)
-

Display This Question:

If Did you offer that student any support? = Yes

Q20 What area was that support related to?

- ☐ Academic (1)
 - ☐ Social (2)
 - ☐ Health, Safety, and Wellness (3)
 - ☐ Other (4) _____
-

Q21 Have you ever suspected a student that you have interacted with to have ASD?

- ☐ Yes (1)
- ☐ No (2)

End of Block: Demographic Information

Start of Block: Background Knowledge

Q22 The following questions are designed to measure your knowledge of ASD.

Q23

Rate the following statement: Individuals with ASD can and do attend institutes of higher education.

- ☐ Strongly agree (1)
 - ☐ Somewhat agree (2)
 - ☐ Neither agree nor disagree (3)
 - ☐ Somewhat disagree (4)
 - ☐ Strongly disagree (5)
-

Q24 Rate the following statement: All children and adolescents with ASD have poor outcomes as adults.

- ☐ Strongly agree (1)
 - ☐ Somewhat agree (2)
 - ☐ Neither agree nor disagree (3)
 - ☐ Somewhat disagree (4)
 - ☐ Strongly disagree (5)
-

Q25 Approximately how many individuals are diagnosed with ASD in the United States?

- ☐ 1 in 59 (1)
 - ☐ 1 in 150 (2)
 - ☐ 1 in 68 (3)
-

Q26 At what age are the signs of ASD first able to be observed?

- ☐ <1 year (1)
 - ☐ 1-2 years (2)
 - ☐ 2-3 years (3)
 - ☐ 3-4 years (4)
 - ☐ 4-5 years (5)
-

Q27 Rate the following: ASD is a disorder that ranges in degree from mild to severe.

- ☐ Strongly agree (1)
 - ☐ Somewhat agree (2)
 - ☐ Neither agree nor disagree (3)
 - ☐ Somewhat disagree (4)
 - ☐ Strongly disagree (5)
-

Q28 Rate the following: Children with ASD are NOT allowed to attend public or private elementary, middle or high school without parents first seeking the school's permission.

- ☐ Strongly agree (1)
 - ☐ Somewhat agree (2)
 - ☐ Neither agree nor disagree (3)
 - ☐ Somewhat disagree (4)
 - ☐ Strongly disagree (5)
-

Q29 How can ASD be cured?

- ☐ Low glucose diet (1)
 - ☐ Medication (2)
 - ☐ Speech-language therapy (3)
 - ☐ There is no cure (4)
 - ☐ Other (5) _____
-

Q30 Rate the following statement: One can acquire ASD from a childhood vaccine (e.g., MMR).

- ☐ Strongly agree (1)
 - ☐ Somewhat agree (2)
 - ☐ Neither agree nor disagree (3)
 - ☐ Somewhat disagree (4)
 - ☐ Strongly disagree (5)
-

Q31 Which of the following is typically associated with ASD?

- ☐ Having a projecting jaw (1)
 - ☐ Not being very social (2)
 - ☐ Being extremely social (3)
 - ☐ Having a poor immune system (4)
-

Q32 Which gender tends to have a higher diagnostic rate of ASD?

- ☐ Male (1)
 - ☐ Female (2)
 - ☐ There is no difference (3)
-

Q33 Rate the following statement: Individuals with ASD tend to exhibit repetitive patterns of behavior and interest (ex: spinning the wheels on toy cars and/or isolated interest in maps).

- ☐ Strongly agree (1)
 - ☐ Somewhat agree (2)
 - ☐ Neither agree nor disagree (3)
 - ☐ Somewhat disagree (4)
 - ☐ Strongly disagree (5)
-

Q34 Rate the following statement: Older fathers with younger mothers have an increased risk of having a child with ASD.

- ☐ Strongly agree (1)
 - ☐ Somewhat agree (2)
 - ☐ Neither agree nor disagree (3)
 - ☐ Somewhat disagree (4)
 - ☐ Strongly disagree (5)
-

Q35 Fill in the blank. Mothers over 40 are _____ as likely to give birth to a child with ASD compared to mothers under 30.

- ☐ Just (1)
 - ☐ Two times (2)
 - ☐ Three times (3)
 - ☐ Four times (4)
-

Q36 Rate the following statement: Autism Spectrum Disorder (ASD) is more common in underrepresented and low socioeconomic populations in the United States.

- ☐ Strongly agree (1)
- ☐ Somewhat agree (2)
- ☐ Neither agree nor disagree (3)
- ☐ Somewhat disagree (4)
- ☐ Strongly disagree (5)

End of Block: Background Knowledge

Start of Block: Support

Q37 The following questions are designed to elicit an understanding of the current level of support offered to students with ASD who attend institutes of higher education from the perspective of faculty, staff, and administrators. Please answer to the best of your ability.

Q38 Select all that apply: What support is offered to students with ASD who enroll in the courses you teach, as described/approved by student support services (e.g. office of disability)? (Answer this question based on students who have disclosed that they have ASD.)

- ☐ Extended test time (1)
- ☐ Note taker (2)
- ☐ Distraction free test area (3)
- ☐ Flexible or extended due dates for assignments (4)
- ☐ Use of technology in the classroom (5)
- ☐ Other (8) _____
- ☐ None (9)
- ☐ N/A (10)

Display This Question:

If Select all that apply: What support is offered to students with ASD who enroll in the courses you... != None

And Select all that apply: What support is offered to students with ASD who enroll in the courses you... != N/A

Q39 Select all that apply: What support do you think is beneficial to students with ASD as described by student support services (e.g. office of disability)? (Answer this question based on students who have disclosed that they have ASD.)

- ☐ Extended test time (1)
 - ☐ Note taker (2)
 - ☐ Distraction free test area (3)
 - ☐ Flexible or extended due dates for assignments (4)
 - ☐ Use of technology in the classroom (5)
 - ☐ Other (6) _____
 - ☐ None (7)
 - ☐ N/A (8)
-

Q40 Check all that apply. Which of the following support do you think is NOT beneficial to students with ASD, as outlined/described/approved by student support services (e.g., office of disability)? (Answer this question based on students who have disclosed that they have ASD.)

- ☐ Extended test time (1)
 - ☐ Note taker (2)
 - ☐ Distraction free test area (3)
 - ☐ Flexible or extended due dates for assignments (4)
 - ☐ Use of technology in the classroom (5)
 - ☐ Other (6) _____
 - ☐ None (7)
-

Q41 Check all that apply. Which of the following support do you think would be beneficial to offer to students with ASD? (These do not need to be described/approved by student support services (e.g., office of disability)).

- ☐ Classroom etiquette training (1)
- ☐ Meal gatherings (2)
- ☐ Student organizations/support group (3)
- ☐ Peer mentor/support (4)
- ☐ Social skills support group (5)
- ☐ Academic Coaching (6)
- ☐ Faculty/staff/administrator mentor support (7)
- ☐ Counseling (8)
- ☐ Housing Accommodations (9)
- ☐ Emergency representative or telephone line (10)
- ☐ Trained Residence Hall Staff (11)
- ☐ Physical Fitness Program (12)
- ☐ Case management to help with all areas (13)
- ☐ Sensory friendly spaces (14)
- ☐ Other (15) _____

Q42 Does your institute of higher education offer a support group for students with ASD?

- ☐ Yes (1)
- ☐ No (2)
- ☐ I don't know (3)
-

Q43 Does your institute of higher education have training for faculty, staff, and administrators specific to ASD?

- ☐ Yes (1)
- ☐ No (2)
- ☐ I don't know (3)
-

Display This Question:

If Does your institute of higher education have training for faculty, staff, and administrators speci... = No

Q44 Do you feel a training specific to ASD would be beneficial in your role as a faculty, staff or administrator?

- ☐ Yes (1)
- ☐ No (2)

End of Block: Support

Start of Block: Satisfaction

Q45 Please use the following definitions in order to answer the questions below:

Academic supports are designed to aid students with course work and other academic concerns both inside and outside the classroom.

Social supports are designed to help students make connections with their peers and on campus.

Health and wellness supports are designed to help students maintain physical, emotional, and mental wellness, as well as ensure they are comfortable in their environment.

Career supports are designed to transition students into employment by giving them the skills to obtain a job and helping them find the right path.

Q46 Rate your satisfaction level for the following questions:

	Extremely satisfied (1)	Slightly satisfied (2)	Neither satisfied nor dissatisfied (3)	Slightly dissatisfied (4)	Extremely dissatisfied (5)
The support options I am able to give are adequate (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My institute of higher education provides appropriate academic support for students with ASD (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My institute of higher education provides appropriate social support for students with ASD (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My institute of higher education provides appropriate health and wellness support for students with ASD (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Satisfaction