TRANSGENDER/GENDER NONBINARY STUDENTS WITH DISABILITIES: BEST PRACTICES FOR DISABILITY SUPPORT SERVICES PROVIDERS IN POSTSECONDARY EDUCATION

by

Dana M. Cea (she/they)

May, 2021

Director of Dissertation: Stephen J. Leierer, Ph.D.

Major Department: Department of Addictions and Rehabilitation Studies

There are approximately 26,600 students of public higher education in the United States of America who identify as transgender/gender nonbinary and have at least one disability. Research has focused on these two marginalized identities (i.e., gender identity, disability status) separately for college students, and there is sparse research regarding the experiences of students for whom these two identities intersect. This study addressed the gap in research by exploring which best practices used by disability support services (DSS) providers and administrators led to student academic success and elicited feedback on the best practices from these students. A survey of questions was created based upon previous research regarding the academic success of college students with disabilities and proposed best practices for supporting this group of students. Survey responses were received from recent students (n = 89) of public higher education who identified as transgender/gender nonbinary and had at least one disability. The results indicate that the majority of participants contacted disability support services at their public university or college. A relationship between contacting DSS providers and administrators and academic success was not found to be statistically significant. Additionally, the relationship

between receiving accommodations from DSS providers and administrators and academic success was not found to be statistically significant. Further results demonstrated a significant association only between academic success and three practices: (1) DSS providers and administrators offering to connect students with career counseling or other vocational supports, (2) DSS providers and administrators ensuring participants' inclusion in campus activities and groups, and (3) DSS providers and administrators ensuring that school facilities are accessible for students. Finally, the best practice endorsed by the most participants was hiring staff who openly identify as having a disability. Qualitative responses from students indicated a need for responsiveness, advocacy, and accessibility from DSS providers and administrators. Limitations of this study include new instrumentation with a need for more validity and reliability information; a relatively small sample size with no demographic information gathered; and the effects of current events. Implications for DSS providers and administrators, counselor educators, and future research conclude the study.

TRANSGENDER/GENDER NONBINARY STUDENTS WITH DISABILITIES: BEST PRACTICES FOR DISABILITY SUPPORT SERVICES PROVIDERS IN POSTSECONDARY EDUCATION

A Dissertation

Presented to the Faculty of the Department of Addictions and Rehabilitation Studies

East Carolina University

In Partial Fulfillment of the Requirements for the Degree

Ph.D. Rehabilitation Counseling and Administration

by

Dana M. Cea (she/they)

May, 2021

TRANSGENDER/GENDER NONBINARY STUDENTS WITH DISABILITIES: BEST PRACTICES FOR DISABILITY SUPPORT SERVICES PROVIDERS IN POSTSECONDARY EDUCATION

by

Dana M. Cea (she/they)

APPROVED BY:

DIRECTOR OF DISSERTATION: _____
Stephen Leierer, PhD

COMMITTEE MEMBER: _____
Steven R. Sligar, EdD

COMMITTEE MEMBER: _____
William “Leigh” Atherton, PhD

COMMITTEE MEMBER: _____
Jody L. Herman, PhD

COMMITTEE MEMBER: _____
Terry Phoenix, PhD

CHAIR OF THE DEPARTMENT OF ADDICITIONS AND REHABILITATION STUDIES:

_____
Paul Toriello, RhD

DEAN OF THE GRADUATE SCHOOL: _____
Paul J. Gemperline, PhD

DEDICATION

This work is dedicated to the transgender/gender nonbinary students with disabilities who are making the world better. I hope you find your place at the table.

ACKNOWLEDGEMENTS

First, a huge thank you to everyone who shared my survey and to the participants who took my survey. Without you I would not have had anything to write! Next, my gratitude for everyone who supported me in the dissertation process (in order of appearance). My family, who cheered me on at each step. Mom, who read and re-read every word for me. Dad, who instilled in me my work ethic and commitment to others. AG, who fed me and reminded me to take breaks. My fellow PhD students, who kept me grounded. Dr. Leierer, who stayed up well past my bedtime to help me with everything from statistics to wording. Dr. Sligar, who caught every misspelling and grammar error. Dr. Toriello, who had my back. Dr. Atherton, who reminded me to bring my study back to intersectionality theory. Dr. Herman and Dr. Phoenix, who added perspectives from the community levels.

The acknowledgements are countless. I will wrap up by saying thank you to everyone who has given me a place at the table.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1: INTRODUCTION

Introduction

This chapter introduces this research study's aim to identify which practices used by disability support services providers and administrators predict the academic success of higher education students who identify as transgender/gender nonbinary and have at least one disability. The chapter includes the background of the study, problem statement and purpose, theoretical framework, definitions, research questions, justification and study significance, and a brief summary of the chapter.

Background of the Study

Approximately 26,600 students of public higher education (i.e., colleges, universities) in the United States of America (USA) identify as transgender/gender nonbinary and have at least one disability. This is based upon published findings from (1) the National Center for Education Statistics (Snyder et al., 2019a); (2) the Williams Institute (Flores et al., 2016); and (3) the 2015 U.S. Transgender Survey (James et al., 2016). These students are provided accommodations by their institutions of higher education, as required by the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973 (ADA National Network, 2017). Institutions of higher education are also required to have at least one staff person who ensures the college or university complies with Title II of the ADA or Section 504 or both. These providers and administrators can be generally referred to as disability support services (DSS).

Researchers have found that higher education students with disabilities who request accommodations from DSS providers and administrators are more likely to succeed than students with disabilities that do not use DSS providers and administrators (Dong & Lucas, 2016). There is a significant positive correlation between the frequency of visits to DSS providers and

administrators and grade point averages (GPAs). The more frequently students visited DSS providers and administrators, the higher their GPAs (Abreu et al., 2016).

If higher education students experience discrimination when contacting DSS, they may be less likely to contact DSS providers and administrators. Higher education students who identify as transgender/gender nonbinary and higher education students with disabilities experience discrimination from mental health, health, and DSS providers and administrators (Abreu et al., 2016; Fleming et al., 2017; Goldberg, et al., 2019). A general conclusion could be made that higher education students who both identify as transgender/gender nonbinary and have at least one disability are experiencing discrimination when contacting DSS providers and administrators at their colleges or universities. Based upon prior research (Abreu et al., 2016; Fleming et al., 2017), this lack of contact with DSS may hinder the students' academic success. Without contacting DSS these students do not have access to accommodations, and without accommodations they may be less likely to have academic success.

The current study acknowledges the possible presence of discrimination and focused on surveying higher education students who identify as transgender/gender nonbinary and have at least one disability. The results were shared with DSS providers and administrators to increase academic success for these students.

Problem Statement and Purpose

In 2013 Mizock and colleagues published "Brief Report on Transgender Students with Disabilities: Best Practices for Higher Education." The authors compiled ten best practices based upon previously published research and intended to be implemented campus-wide. After searching several databases, no empirical research to date had (1) explored which of Mizock and colleagues' (2013) best practices lead to student academic success or (2) elicited feedback on the

best practices from college students who identify as transgender/gender nonbinary and have at least one disability. This study did both so that the voices of these students are heard and so that DSS staff can improve their services offered to these students. The ultimate purpose of this study was to share with DSS providers and administrators in higher education some best practices they can implement to help these students succeed.

Theoretical Framework

This study was conducted to fill this gap in research on best practices of DSS providers and administrators. Intersectionality was used as both the epistemological perspective, or relevant theory, and research paradigm (Gopaldas, 2013) for this quantitative study. Kimberlé Crenshaw (1989) initially used the word intersectionality to discuss how black women's employment experiences are affected by the many ways race and gender interact. Crenshaw examined how systems of power were forcing black women to justify their discrimination based solely on their race or gender, yet not both identities. Over time intersectionality theory has expanded to include the interaction of all identities, both privileged and marginalized (Moradi & Grzanka, 2017).

Intersectionality theory can be used to provide a theoretical framework for understanding how students' academic success is affected. Students may experience differing (e.g., supportive, unsupportive) treatment by systems of power due to their intersecting identities. Participants in the current study self-identified as transgender/gender nonbinary and as having at least one disability. Both of these identities are considered marginalized or oppressed by systems of power (Moradi & Grzanka, 2017). The systems of power for participants—according to intersectionality theory—included the umbrella of public higher education and the DSS providers and administrators within each institution. The participants' experiences based upon

the interaction of their two identities within systems of power were explored through intersectionality theory.

Intersectionality theory is used by researchers not just to identify sources of oppression for marginalized identities. Researchers take this information one step further by providing guidance on creating societal changes that address and attempt to resolve the oppression (Gopaldas, 2013; Moradi & Grzanka, 2017). This study intends not to uncover sources of oppression for college students who identify as transgender/gender nonbinary and have at least one disability. Instead, the ultimate purpose of this study is to identify best practices that DSS providers and administrators in higher education can implement to help these students succeed better.

Definitions

Before discussing the research questions used to address the problem statement and purpose, definitions of the variables are needed. This section provides definitions for common terms, including variables, used in this study.

Transgender: Defined by Baker (2017) as individuals whose "gender identity — their innate, deep-seated knowledge of their own gender — differs from that typically associated with the sex they were assigned at birth" (2017, p. 1801). In accordance with American Counseling Association (2010) guidelines and intersectionality theory, participants in this study self-identify as transgender/gender nonbinary (see Chapter 2 Review of Relevant Theory).

Disability: Defined by ADA and the Rehabilitation Act of 1973 as "a physical or mental impairment that substantially limits one or more major life activities" (ADA, 2020). Individuals who have a record of or are perceived as having this type of impairment are covered by the ADA and Section 504 of the Rehabilitation Act of 1973 (ADA, 2020). In accordance with

intersectionality theory, participants in this study self-identify as having at least one disability (see Chapter 2 Review of Relevant Theory).

Disability support services (DSS): Refers to staff persons who ensure their higher education institution complies with Title II of the ADA or Section 504 or both. Note that each university or college may have different requirements in the job descriptions and requirements of these staff persons.

Contact DSS: Refers to any effort made by students to communicate with their institution of higher education's DSS. This action includes and is not limited to requesting accommodations.

Student academic success: Defined by Dong and Lucas (2016) as students who were "at the end of the semester registered as a student at the university and in good academic standing" (p. 49). Due to the complexities of varying requirements amongst higher education institution, the definition of student academic success from Dong and Lucas was adapted for this study. The authors noted the following situations exclude students from their definition of academic success:

> (b) at the end of the semester registered as a student at the university and on academic probation (i.e., students whose cumulative GPA fell below 2.0); (c) at the end of the semester registered as a student at the university and academically dismissed (i.e., students who, following a probationary semester, had failed to attain a minimum semester GPA of 2.0); (d) or not registered at the end of the semester (including those who had not registered for classes or those who had registered but cancelled their registration or withdrew from classes during the semester). (p. 49)

Best practices: Defined by Mizock and colleagues (2013) as "concrete steps for college professionals to reduce barriers and enhance awareness of the needs of many transgender

students with psychiatric and physical disabilities" (p. 27). Defined by Merriam-Webster (n.d.) as "a procedure that has been shown by research and experience to produce optimal results and that is established or proposed as a standard suitable for widespread adoption." For the purposes of this study, best practices are the actions that DSS providers and administrators could take to contribute to the academic success of students who identify as transgender/gender nonbinary and have at least one disability.

Research Questions

The primary purpose of this study is to identify which practices used by DSS providers and administrators predict the academic success of students in higher education who identify as transgender/gender nonbinary and have at least one disability. In addition to discovering which practices contribute to students' academic success, other potential contributing variables to academic success were examined. Students were also asked to identify which practices they believe contribute the most to their academic success. The following research questions were examined.

Research Question 1: What percentage of participants in this study contacted disability support services at their public university or college?

Research Question 2: Is there a relationship between contacting DSS providers and administrators and academic success for participants in this study?

Research Question 3: Is there a relationship between receiving accommodations and academic success for participants in this study?

Research Question 4: Which of the 12 best practices increased the probability of academic success for participants in this study?

Research Question 5: Which practices do participants in this study indicate they believe would contribute to their academic success?

Justification and Study Significance

Previous studies have explored the experiences of college students who either identify as transgender/gender nonbinary or identify as having disabilities. These studies include the students' experiences of discrimination (Abreu et al., 2016; Fleming et al., 2017; Goldberg et al., 2019) and student academic success (Abrue et al., 2016; Dong & Lucas, 2016; Herbert et al., 2014). However, after searching several databases no studies to date have been found to examine the experiences higher education students with these intersecting identities have when contacting DSS. This study was conducted to fill the gap in research by using intersectionality theory approaches to explore the experiences of higher education students who identify as transgender/gender nonbinary and have at least one disability. Research based on intersectionality theory addresses how multiple identities shape individuals' experiences. Specifically, this study examined how the experiences of these students affect the probability of their academic success. The data analyses were examined to determine which best practices contribute to students' academic success and which best practices students believe contribute to their academic success. Finally, these results were shared with DSS providers and administrators at public institutions of higher education to help address potential discrimination experienced by these students.

Chapter Summary

The purpose of this study was to identify which practices used by DSS providers and administrators predict the academic success of students in higher education who identify as transgender/gender nonbinary and have at least one disability. Information on potential statistics

for the sample of this study, the sample's experiences of discrimination, and the contributing variables to students' academic success are provided. Next, a statement of the problem regarding the lack of empirical research on best practices for the population is noted, followed by the purpose of sharing the study results with DSS providers and administrators (i.e., implementation to improve students' academic success) were noted. The theoretical framework, important definitions, and research questions followed. Finally, the chapter concluded with the study's justification and significance. The next chapter will expand on the relevant empirical research on this study's variables, exploring research similar to the current study, and making conclusions from the reviews presented.

CHAPTER 2: LITERATURE REVIEW

Introduction

The literature review conducted for this study is described in this chapter. The chapter begins with a review of intersectionality theory. Three characteristics of research to consider are posed by Cole (2009, p. 171) to researchers who are using intersectionality theory: (1) who is included within this category, (2) what role does inequality play, and (3) where are there similarities. This chapter will address these characteristics by examining relevant empirical research on this study's variables, exploring studies similar to this study, and making conclusions based on the reviews presented.

Review of Relevant Theory

Intersectionality theory is used by researchers as "an epistemological perspective or research paradigm" (Gopaldas, 2013, p. 91). In this study, intersectionality was used as both the epistemological perspective, or relevant theory, and research paradigm for this quantitative study. Kimberlé Crenshaw (1989) originally used the word intersectionality to discuss how black women's experiences in employment are affected by the many ways race and gender interact. Over time intersectionality theory has expanded to include the interaction of all identities, both privileged and marginalized (Moradi & Grzanka, 2017). Researchers using intersectionality theory do not treat the identities as independent and unrelated. Rather, researchers see the identities as interdependent, thus intersecting (Gopaldas, 2013; Moradi & Grzanka, 2017). Research conducted with approaches based on intersectionality theory strives to make connections between the experiences of individuals with intersecting identities (Warner, 2008).

Due to their intersecting identities, individuals may experience support, suppression, or both within systems of power (Warner, 2008). In the current study, participants self-identify as

transgender/gender nonbinary and as having at least one disability. Both of these identities are considered marginalized, or oppressed by systems of power (Moradi & Grzanka, 2017). The systems of power for study participants, based upon intersectionality theory, would include the public institutions of higher education and the disability support services (DSS) providers and administrators within each institution. The two identities (i.e., gender, disability) were not isolated as in previous studies (see Review of Similar Studies). Instead, the participants' experiences based upon the interaction of their two identities within systems of power were explored through intersectionality theory.

For example, a transwoman with a disability that affects her mobility will have several considerations when finding on-campus housing. A few of those concerns may include: (1) if she will be placed in a male or female dorm, (2) if she will have an accepting roommate, (3) if her dorm will be accessible given her disability. These three concerns could be addressed by at least three separate areas of student affairs, or systems of power, within the institution. The first concern about the type of dorm would be addressed by campus housing. The second concern about finding a roommate might be addressed by the lesbian, gay, bisexual, transgender, queer (LGBTQ) office. The third concern about dorm accessibility would be addressed by the disability support services. Having three different departments within student affairs addressing the concerns of one student causes inadvertent oppression. Coordination and understanding from all three offices would be required to help the student with her concerns due to the intersecting identities of transwoman and person with a disability.

Intersectionality theory is used by researchers not just to identify sources of oppression for marginalized identities. Researchers take this information one step further by providing guidance on creating societal changes that address and attempt to resolve the oppression

(Gopaldas, 2013; Moradi & Grzanka, 2017). There was no intention to uncover sources of oppression for college students who identify as transgender/gender non-binary and have at least one disability in the current study. Instead, the ultimate goal was to identify best practices that DSS providers and administrators in higher education can implement to better help these students succeed.

Review of Key Variables

Through the lens of intersectionality theory, the variables to consider in this study are the systems of power (i.e., public institutions of higher education, DSS providers and administrators) and the students' identities (i.e., gender, disability).

Public Institutions of Higher Education

In the United States of America (USA) there are around 1,600 public institutions of higher education). Student enrollment ranges from less than 200 to more than 30,000 for a total of almost 14.6 million students (Snyder et al., 2019a). Reasons for enrolling in a public institution of higher education include continuing education credits, associate degrees, baccalaureate degrees, master's degrees, and doctoral degrees. There are a wide variety of ways that these institutions are governed. If public institutions receive funding from their states and the federal government, they have less independence than private institutions. For example, the state governments are responsible for regulating public institutions—such as developing policies. Conversely the federal government enforces the Americans with Disabilities Act (ADA) of 1990 by ensuring that students have access to higher education regardless of disability status (Helms et al., 2019).

Disability Support Services

Each of the 1,600 public institutions of higher education have at least one person staff person who ensures the college is in compliance with Title II of the ADA, Section 504 of the Vocational Rehabilitation Act of 1973, or both. According to the ADA National Network (2017), institutions of higher education are required by the ADA to provide accommodations to students with disabilities. These staff persons are located in offices or positions known as disability support services. When the Vocational Rehabilitation Act of 1973 was passed, the act included language that ensured the inclusion of students with disabilities in higher education. Specifically, Section 504 noted that institutions of higher education had to accept applications from students with disabilities and provide accommodations to students with disabilities. These rights were expanded upon in 1990 when the ADA passed. Twenty years later the Americans with Disabilities Act Amendments Act was passed to clarify the previous legislation (Madaus, 2011).

Disability

There are almost 4.2 million higher education students in the USA have disabilities. About 19.4% of undergraduate students and 11.9% of graduate students in the USA reported having at least one disability (Snyder et al., 2019b). Findings from the National Longitudinal Transition Study-2 (NLTS2) indicate that the majority of students with disabilities do not disclose their disability to institutions of higher education. Also, less than a quarter of students who do disclose their disability receive accommodations (Newman & Madaus, 2015). While the institutions are required to provide accommodations to students with disabilities, most of the students are not receiving these supports. There are many reasons why students may not receive accommodations, and one reason may be discrimination they experience from the institutions and DSS providers and administrators (Dammeyer & Chapman, 2018).

Transgender and Gender Nonbinary

About 95,000 students in public higher education in the USA identify as transgender/gender nonbinary (Flores et al., 2016; Snyder et al., 2019a). Gender identity is not considered a disability under Title II of the ADA or Section 504. However, a mental health complication associated with a student's gender identity that affects their education could be addressed with Section 504 (Silverman et al., 2017). Transgender people are described by Baker (2017) as "those whose gender identity — their innate, deep-seated knowledge of their own gender — differs from that typically associated with the sex they were assigned at birth" (p. 1801). The American Counseling Association (ACA) notes that transgender is "an umbrella term" (2010, p. 159) and for the term to be properly used to describe an individual, that individual must self-identify as transgender. College students who identify with any of the identities that fall under the umbrella of transgender, including gender nonbinary, were the focus of this study.

In 2016 under President Barack Obama, a Dear Colleague letter was published by the Departments of Education and Justice. The letter explained how the two departments assess a school's compliance with their obligations to transgender/gender nonbinary students under Title IX of the Education Amendments of 1972 (Lhamon & Gupta, 2016). The areas of compliance included in the letter reflect some of the best practices noted by Mizock and colleagues (2013): safe and nondiscriminatory environment; identification documents, names, and pronouns consistent with the student's gender identity; sex-segregated activities and facilities accessible to the student consistent with their gender identity; and confidentiality in privacy and education records. However, in 2017 under President Donald Trump, a subsequent Dear Colleague letter was published by the Departments of Education and Justice to rescind the previous letter (Battle & Wheeler, 2017). Therefore, the responsibility is with each institution of higher education to

uphold the areas of compliance for supporting transgender/gender nonbinary students (Beemyn, 2017).

Intersection of the Variables

Over 26,000 students of public higher education in the USA identify as transgender/gender nonbinary and have at least one disability (Flores et al., 2016; James et al., 2016; Snyder et al., 2019a). To gain access to accommodations, these students would contact DSS providers and administrators at the institutions for services. The 2018 Center for Collegiate Mental Health Annual Report (2019) indicated that 16.4% of students who identified as transgender were registered with DSS. That is almost twice the percentage of female (9.1%) and male (9.3%) students who were registered with DSS. This study delved into the experiences found at the intersection of these identities for college students in public institutions of higher education.

Review of Similar Studies

Discrimination

People with disabilities experience discrimination more frequently than people without disabilities. Dammeyer and Chapman (2018) found that 2.5% to 6.1% of people with disabilities they surveyed experienced discrimination in educational settings (e.g., staff at institutions of higher education) and when accessing services (e.g., staff in healthcare); whereas people without disabilities reported no discrimination in educational settings nor when accessing services. Additionally, people who identify as transgender/gender nonbinary experience discrimination when accessing services.

James and colleagues (2016) found that 33% of transgender/gender nonbinary respondents experienced discrimination when accessing health services. Discrimination included

three main areas: (1) care provided (e.g., being treated disrespectfully by the health care provider because the person was transgender, having to teach the health provider about transgender individuals to receive appropriate care, being refused care related to their transgender identity, being refused other health care services), (2) language used (e.g., being asked unnecessary/invasive questions about transgender identity unrelated to the reason for health care services, receiving harsh or abusive language from the health care provider, receiving verbal harassment in the health care setting, being verbally attacked by someone in the health care setting), and (3) physical contact (e.g., receiving rough or abusive physical though from the health care provider, receiving unwanted sexual contact in the health care setting). James and colleagues (2016) also explored the intersection of identifying as transgender/gender nonbinary and having at least one disability. Transgender/gender nonbinary respondents with at least one disability had higher rates of discrimination (42%) than those without disabilities (30%). Using intersectionality theory these disparities could be interpreted as an indication that the systems of power (e.g., health care providers) discriminated against these individuals with multiple identities.

Discrimination experienced by college students who identify as transgender/gender nonbinary when accessing mental health and health services was explored by Goldberg and colleagues (2019). Their mixed-methods study found that almost 60% of participants accessing counseling services and almost 75% of participants accessing health services experienced discrimination—described as students being misgendered by the health provider. Misgendering occurred when the health care provider did not refer to the student by their established gender, such as using incorrect pronouns. These results indicate that the majority of college students who

identify as transgender/gender nonbinary may experience discrimination when utilizing counseling and health services.

Goldberg and colleagues (2019) also examined if the college students who identify as transgender/gender nonbinary described the care they received from the mental health and health services as trans-affirming. After going through several databases, trans-affirming care was found to be defined only by Carroll and Mizock (2017, p. xi) as a "treatment paradigm that celebrates the broad spectrum of gender identities and the range of treatment options and outcomes." Care from counseling services was described as not at all trans-affirming, not very trans-affirming, or neutral/mixed by over 20% of participants. Almost 50% of participants described care from health services as not at all trans-affirming, not very trans-affirming, or neutral/mixed (Goldberg et al., 2019).

These results indicate that while the majority of college students who identify as transgender/gender nonbinary may receive trans-affirming care when utilizing counseling and health services, at least one-fifth of students may not. Goldberg et al.'s (2019) research was not specific to DSS; however, the findings may reflect the experiences of college students who identify as transgender/gender nonbinary and have at least one disability when contacting DSS providers and administrators. To date, some studies have examined the general population of college students and their experiences contacting DSS providers and administrators, yet no significant studies have researched this population. Fleming and colleagues (2017) found that some students described treatment by DSS staff as unfair, biased, and judgmental. Several participants in Abreu et al.'s (2016) study reported feeling that DSS staff helped faculty more than students and that DSS staff did not support students using accommodations with faculty.

Based upon the previously noted research, both (1) college students who identify as transgender/gender nonbinary and (2) college students with disabilities experience discrimination from mental health, health, and disability support services. The current study acknowledges the presence of discrimination and is focusing on best practices to contribute to the academic success of these students.

Student Academic Success

College students with disabilities that request accommodations from DSS providers and administrators are more likely to succeed than students with disabilities that do not use DSS providers and administrators (Dong & Lucas, 2016). Also, the more frequently students visited DSS providers and administrators, the higher their grade point averages (Abreu et al., 2016). However, Herbert and colleagues (2014) found that students with disabilities who received disability support services (66.5%) had about the same graduation rate as students with disabilities who did not receive disability support services (65.1%). As all three studies note, there are many reasons for (1) why students would not request accommodations from DSS providers and administrators, (2) how often students visit DSS providers and administrators, and (3) how well the students proceed through college (Abreu et al., 2016; Dong & Lucas, 2016; Herbert et al., 2014).

Student academic success was defined differently by the three studies. Abreu and colleagues (2016) focused on grade point averages, and Herbert and colleagues (2014) examined degree completion or graduation. Dong and Lucas (2016) described students with academic success as students who were “at the end of the semester registered as a student at the university and in good academic standing” (p. 49). The authors noted the following situations exclude students from their definition of academic success:

> (b) at the end of the semester registered as a student at the university and on academic probation (i.e., students whose cumulative GPA fell below 2.0); (c) at the end of the semester registered as a student at the university and academically dismissed (i.e., students who, following a probationary semester, had failed to attain a minimum semester GPA of 2.0); (d) or not registered at the end of the semester (including those who had not registered for classes or those who had registered but cancelled their registration or withdrew from classes during the semester). (p. 49)

Due to the complexities of varying requirements amongst institutions of higher education, the definition of student academic success from Dong and Lucas was adapted for this study. Similar to the three studies noted, student academic success was evaluated upon students contacting DSS providers and administrators and receiving accommodations. Additionally, the study investigated which specific practices students experience when contacting DSS providers and administrators that increase the probability of students' academic success.

Best Practices

In 2013 Mizock and colleagues published "Brief Report on Transgender Students with Disabilities: Best Practices for Higher Education." The authors defined best practices as "concrete steps for college professionals to reduce barriers and enhance awareness of the needs of many transgender students with psychiatric and physical disabilities" (p. 27). Merriam-Webster (n.d.) defines the term best practices as "a procedure that has been shown by research and experience to produce optimal results and that is established or proposed as a standard suitable for widespread adoption." For the purposes of this study, best practices are the actions that DSS providers and administrators could take to contribute to the academic success of students who identify as transgender/gender nonbinary and have at least one disability.

Mizock and colleagues (2013) compiled ten best practices that address the intersecting identities of college students who identify as transgender/gender nonbinary and have at least one disability. Focuses of the practices included campus activities and groups; campus climate; campus employment and support; campus facilities; campus policies, standards, and procedures; behaviors of faculty and staff; trainings for faculty and staff; culturally sensitive counseling services; and admission. The best practices were based upon previously published research and intended to be implemented campus-wide. To date, no significant research has (1) explored which of the best practices lead to student academic success or (2) elicited feedback on the best practices from college students who identify as transgender/gender nonbinary and have at least one disability. This study did both so that the voices of these students are heard and best practices can be recommended to DSS providers and administrators.

Experiences and Identity

Studies have been conducted on the experiences of college students who identify as transgender/gender nonbinary (see Goldberg, 2018a; Seelman, 2013), and other studies have explored the experiences of college students who have at least one disability (see Abreu et al., 2016; Dong & Lucas, 2016; Fleming et al., 2017; Herbert et al., 2014). Throughout these studies, there are various methods employed to gather information on the identities of participants. Identity is a key aspect of intersectionality theory (Warner, 2008). Thus, defining identities in higher education settings is critical to understanding the influence of systems of power on specific intersecting identities (e.g., gender, disability status).

Goldberg (2018a) compiled over 50 research studies to create “Transgender Students in Higher Education,” a report focused on the experiences of college students who identify as transgender/gender nonbinary. After reviewing all 50 of the research articles referenced in the

report, nine of the studies were found to have elicited feedback from college students who identify as transgender/gender nonbinary. Six used survey questions with a list of options to pick (e.g., checklist) and/or open-ended answers to gather information on participants' gender identities (see Table 1). Participants self-identify when these methods are utilized, as opposed to being assigned a label. Labeling appeared to occur in one study from Seelman (2014), which included individuals "who identified as or were perceived by others as being" transgender/gender nonbinary (p. 10). If participants were labeled instead of self-identifying, some of the participants might not have identified as transgender/gender nonbinary. Thus, this data may not accurately represent Seelman's (2014) results as coming from individuals who identify as transgender/gender nonbinary. Therefore, in this study participants self-identified instead of assigning participants a label.

Table 1

Procedures for Gathering Gender Identity in Studies About College Students Who Identify as Transgender/Gender Nonbinary

Study	Check List	Open-Ended	During Interview	Labeled
Goldberg et al. (2018b)	Yes	Yes		
Goldberg et al. (2018c)	Yes	Yes		
Goldberg et al. (2019)	Yes	Yes		
Krum et al. (2013)		Yes		
McKinney (2005)		Yes		
Pryor (2015)			Yes	
Seelman (2014a)				Yes
Singh et al. (2013)			Yes	
Woodford et al. (2017)	Yes	Yes		

Previously in this chapter, the results of several studies regarding college students with disabilities were reviewed. Two of the studies (Dong & Lucas, 2016; Fleming et al., 2017) used the self-identification method of a check-list of options and open-ended questions to gather information on participants' disabilities. A third study (Abreu et al., 2016) also had participants self-identify as having disabilities using a questionnaire. One study (Herbert et al., 2014) did not employ a self-identification method. Instead, the study used disability information supplied by the university or college's DSS providers and administrator. This approach leads to the concern that if participants were labeled instead of self-identifying, some participants may not have identified as having disabilities. Therefore, this data may not accurately represent Herbert and colleagues' (2014) results as coming from individuals who have disabilities.

Generally, in the research studies noted participants self-identified their gender and disability identities. Because participant experience is pertinent to intersectionality theory, the current study used only self-identification methods to gather gender and disability information about participants.

Conclusions from Reviews

The studies reviewed in this chapter have explored the experiences of college students who either identify as transgender/gender nonbinary or identify as having disabilities. These studies include the students' experiences of discrimination and student academic success. However, to date no studies have examined the experiences of college students with these intersecting identities. This study is being conducted to fill the gap in research by using intersectionality theory approaches to explore the experiences of college students who identify as transgender/gender nonbinary and have at least one disability.

This study acknowledges the presence of discrimination and is focusing on best practices to alleviate discrimination and contribute to the academic success of these students. Best practices proposed by Mizock and colleagues (2013) were examined to find which of the best practices lead to student academic success. Also, feedback on these best practices were elicited from participants. The goal is for the voices of these students to be heard and best practices can be recommended to DSS providers and administrators.

Chapter Summary

Transgender/gender nonbinary individuals with at least one disability experience high rates of discrimination (James et al., 2016), and college students who identify as transgender/gender nonbinary experience discrimination when utilizing counseling and health services (Goldberg et al., 2019). Additionally, college students who have at least one disability

have reported discrimination when contacting DSS providers and administrators (Abreu et al., 2016; Fleming et al., 2017). Based upon the research, college students who identify as transgender/gender nonbinary and college students with disabilities experience discrimination from mental health, health, and disability support services.

Using intersectionality theory, these findings may reflect the experiences of college students who identify as transgender/gender nonbinary and have at least one disability. There are approximately 26,600 students in public institutions of higher education in the USA with these intersecting identities (Flores et al., 2016; James et al., 2016; Snyder et al., 2019a). To gain access to accommodations, these students would contact their campuses' DSS providers and administrators. The current study is focused on best practices to alleviate this discrimination and contribute to the academic success of these students. The next chapter will describe the methods in the study used to evaluate best practices and elicit feedback from participants.

CHAPTER 3: METHODS

Introduction

The methods that were used in the study are described in this chapter. The chapter begins with the research questions and a description of the research design. The design is explained with information on population, sample, sampling, procedures, and instrumentation. Accessibility, advocacy, and ethical concerns for this study are also addressed. The chapter ends with an explanation of the statistical analyses used to explore the research questions.

Research Questions and Design

The purpose of this study was to identify which practices used by disability support services (DSS) providers and administrators predict the academic success of higher education students in public institutions in the United States of America (USA) who identify as transgender/gender nonbinary and have at least one disability. In addition to discovering which practices contribute to students' academic success, other potential contributing variables to academic success were examined, and students were asked to identify which practices they believe contribute the most to their academic success. The following research questions were examined.

Research Question 1: What percentage of participants in this study contacted disability support services at their public university or college?

Research Question 2: Is there a relationship between contacting DSS providers and administrators and academic success for participants in this study?

Research Question 3: Is there a relationship between receiving accommodations and academic success for participants in this study?

Research Question 4: Which of the 12 best practices increased the probability of academic success for participants in this study?

Research Question 5: Which practices do participants in this study indicate they believe would contribute to their academic success?

This descriptive non-experimental study was conducted using a survey research design to answer the research questions. Heppner and colleagues (2016) note that survey research is used to report what is occurring for a population and that descriptive research provides basic information about the experiences of that population. Thus, a survey research design is ideal for this descriptive nonexperimental study. Survey research design is used to determine how best to support specific student populations (Heppner et al., 2016). Thus, this research design is a good fit for the current study's population. Heppner and colleagues (2016) also state that survey research design can be used to create comparisons, identify patterns, and explore causes and effects. Best practices were compared in the hopes of (1) identifying patterns of academic success for higher education students in public institutions in the USA who identify as transgender/gender nonbinary and have at least one disability and (2) making suggestions of cause and effect between the best practices and the academic success of students.

Population

The specific population for this study included college students who identify as transgender/gender nonbinary, have at least one disability, and recently attended a public university or college in the USA. Per the ALGBTIC (2019) Competencies for Counseling with Transgender Clients, students self-identified as transgender/gender nonbinary. Using methods from a study done by Dong and Lucas (2016), students also self-identified as having at least one disability. Recent attendance includes current enrollment, enrollment in the last 12 months, or

graduation during the previous 12 months. Higher education students who are younger than 18 years of age were unable to participate in the study.

Sample and Sampling

As noted below (see Data Analysis), logistic regression was the primary statistical analysis utilized in this study. Recommendations for how to determine adequate sample sizes when running logistic regression varies widely. A standard recommendation of 10 events per variable (EPV) persists in much of the literature despite the lack of rationale for this number (Garson, 2016; van Smeden et al., 2016; van Smeden et al., 2019). Vittinghoff & McCulloch (2007) explored EPV for binary logistic regression when controlling for sample size. The authors found that problems regarding confidence interval coverage, type I errors, and relative bias were "uncommon with 5-9 EPV" (Vittinghoff & McCulloch, 2007, p. 717).

Using these recommendations and considering the predictor variables (i.e., academic success, presence of DSS practices) and the exploratory and novel nature of the study, an adequate sample size would be at least 65 participants. Based upon prevalence findings from (1) the National Center for Education Statistics (Snyder et al., 2019a); (2) the Williams Institute (Flores et al., 2016); and (3) the 2015 U.S. Transgender Survey (James et al., 2016) reported in Chapter 2, there are approximately 26,600 transgender and gender nonbinary students with disabilities in public higher education institutions in the USA. Therefore, responses from at least 0.17% of the population would be needed to obtain an adequate sample size for this study.

The experiences of a small population are being examined; thus, nonprobability sampling is appropriate. Because this study was conducted via an internet survey, participants were selected using two nonprobability sampling strategies: convenience sampling and purposive sampling (Barratt et al., 2015; Miner et al., 2012). Convenience sampling is used when

participants are willing to participate in the research (Taherdoost, 2016). Purposive sampling is used for research on hard-to-reach populations, such as the participants in this study.

Advantages of the two sampling methods include the cost-effectiveness, time efficiency, and simplicity of the sampling. The main disadvantages are selection bias, lack of generalizability, and lack of sufficient statistical power to determine differences between subgroups of a sociodemographic factor (Bornstein et al., 2013; Tanderdoost, 2016). While the final sample was not randomly selected and may not be representative of the population, there is a clear set of criteria for the inclusion of participants (Tanderdoost, 2016). Using homogenous convenience sampling by restricting the sample eligibility to one clearly defined sociodemographic subgroup can result in estimates with generalizability for that subgroup (Jager et al., 2017). The sampling was homogenous due to the restrictive eligibility of participants (i.e., higher education students who identify as transgender/gender nonbinary with at least one disability in the USA at public institutions), a hard-to-reach population.

These two types of sampling (i.e., convenience, purposive) are often used when individuals meeting the inclusion criteria are recruited to participate in the study (Acharya et al., 2013). The recruitment of participants for this study was approved by the Institutional Review Board (IRB) at ECU (see Appendix A). The purposive sampling method for accessing hard-to-reach populations relies on researchers' established knowledge of the field and rapport with members of the population (Barratt et al., 2015). The researcher of this study used personal and professional contacts within the population's support systems to recruit the sample.

Recruitment consisted of outreach to hundreds of student affairs offices and student groups at campuses of higher education in the USA and outreach on social media and paid advertising (see Appendix B). The student affairs offices included disability support services,

sexuality and gender diversity support (e.g., lesbian, gay, bisexual, transgender, queer [LGBTQ] centers), and mental health counseling. Student groups included Disability Rights, Education, Activism, and Mentoring (DREAM) groups sponsored by the National Center for College Students with Disabilities at the Association on Higher Education and Disability, sexuality and gender alliances or similar student groups, and groups specifically supporting transgender/gender nonbinary students (e.g., queer and trans people of color). Social media platforms on which the survey was posted included Facebook, Instagram, Twitter, and social media groups whose intention is to support the transgender/gender nonbinary community, individuals with disabilities, mental health providers, and research studies. Advertising was purchased from Campus Pride, a national nonprofit organization that supports safer environments for students who identify as LGBTQ.

Procedures

Research Electronic Data Capture, or REDCap, was utilized for the data collection and storage through an online survey or storage offline under encryption (Adams et al., 2017), including the informed consent (see Appendix C). REDCap is compliant with both the Health Insurance Portability and Accountability Act of 1996 and the Family Educational Rights and Privacy Act of 1974, thus making REDCap ideal for surveying college students. Data were exported to IBM SPSS® Statistics with the data stored online under encryption in the OneDrive for Business instead of in the SPSS cloud to perform statistical analysis. These steps are being taken to protect the confidentiality of participants and their responses to the survey, such that this information is not exploited.

Participants were asked questions about inclusion criteria and the state in which the student attended the public university or college where they were recently enrolled. No

additional demographics were asked to ensure anonymity and confidentiality. The inclusion criteria (i.e., enrollment or graduation from a USA public university or college, age, transgender/gender nonbinary identity, disability status) was narrow to be more precise about participants included in the study. No incentive was offered for participation. This approach ensured anonymity and confidentiality because no contact information was asked, which would have been needed to send the incentive. Also, current students receiving incentives would have had to file the monies against their financial aid, possibly making compensation for their time a disincentive. Finally, this was an effort to protect the sample's integrity by avoiding duplicate or inappropriate survey submissions from individuals who did not meet eligibility criteria yet submitted a response to the survey to gain the incentive. As discussed in greater detail below (see Advocacy and Ethics Considerations), the online survey format provided increased anonymity and confidentiality, which may have resulted in responses that were more honest than those that would have been collected in person (Wilson et al., 2013).

Accessibility

Internet-based survey platforms, such as REDCap, offer additional accessibility options for participants who have disabilities. Specifically, REDCap has a text-to-speech function that was enabled for this study. Other considerations for this survey included using fonts in larger sizes with high contrast and response options formatted vertically with radio buttons (Wilson et al., 2013). As opposed to a Likert scale, most of the questions had response options that were simplified for various disabilities. Only two questions had response options as checkboxes, and one question had response options as a dropdown. In Microsoft Word the Flesch Reading Ease and the Flesch-Kincaid Grade Level were run on the informed consent form after removing the words "transgender" and "gender nonbinary."

The Flesch Reading Ease was 52.0, and the Flesch-Kincaid Grade Level was 9.1. According to Kelly (2020) the informed consent was only one grade level above what would be expected for readership by the general public or schooling age of 13 to 14. Contact information for the investigators was provided for any participants who experience accessibility concerns.

Instrumentation

The instrumentation used was a survey of questions based upon previous research regarding the academic success of college students with disabilities (Dong and Lucas, 2016) and proposed best practices for supporting students of higher education who identify as transgender and have disabilities (Mizock et al., 2013). The newly created survey had four questions on inclusion criteria, one question about the state where they were recently enrolled, two questions about students' interactions with disability support services providers and administrators, and one question about academic standing. The remaining thirteen questions focused on best practices. Only the eligibility questions required answers for participants to move forward in the survey. For questions regarding best practices, answer options of "prefer not to answer" and "do not know" were given. Reasons why participants may have chosen this option include: (a) they felt their answer would result in retaliation, (b) they did not understand the question, or (c) they were unsure of how to respond.

The survey began with the informed consent (see Appendix C). If participants consented to the study, they were asked questions that address eligibility (e.g., being 18 years or older, recent enrollment at a public university or college in the USA, identifying as transgender/gender nonbinary, identifying as having at least one disability) (see Appendix D). If participants indicated they met all eligibility criteria, they moved on to the next section of questions. The first question asked about the general location (i.e., state) of the public university or college where

they were recently enrolled. The next two questions (see Appendix D) asked (1) if students have ever contacted the DSS providers and administrators at the public university or college where they were recently enrolled and (2) if students received accommodations from the DSS providers and administrators at that institution.

Lastly, students were asked about their academic standing (see Appendix D). This question was influenced by a study by Dong and Lucas (2016) on the academic success of college students with disabilities. The researchers defined academic standing as either (1) students enrolled in courses and in good academic standing or (2) students who experienced academic probation, academic dismissal, or discontinued course registration. The latter students were not considered in good academic standing. Students were asked if they had experienced academic probation, academic dismissal, withdrawal from classes, or classes dropped at the public university or college where they were recently enrolled in or graduated from (see Appendix D). Students who have not had these experiences (i.e., uninterrupted progress) have experienced academic success. This question also asked if students graduated, which does not automatically indicate success because they may also have experienced interrupted progress.

In the next section, all students—including those who have not visited or contacted the DSS providers and administrator—were asked to answer to the best of their knowledge whether or not the DSS providers and administrator followed twelve best practices (see Appendix D). Best practices used in the survey were based upon the ten best practices from Mizock and colleagues' (2013) Brief Report on Transgender Students with Disabilities: Best Practices for Higher Education (p. 28-30) as listed below:

- create a welcoming campus climate
- avoid biased behaviors

- ensure inclusion in campus activities and groups
- protect confidentiality
- conduct regular staff and faculty trainings
- make culturally sensitive counseling services available
- provide fair employment practices and supports
- monitor ongoing services and policies
- make facilities accessible
- provide fair admissions

Besides citing the original sources, Mizock and colleagues (2013) did not note their inclusion criteria for their final list of best practices. Mizock and colleagues used some of the original sources focused on individuals who identified with a variety of LGBTQ identities and not solely on individuals who identified as transgender/gender nonbinary. Furthermore, the majority of the original sources were written at least ten years ago. Consequently, the current study was needed to determine if the best practices suggested by Mizock and colleagues actually contribute to the academic success of college students who identify as transgender/gender nonbinary and have at least one disability.

Finally, all students regardless if they communicated with DSS or not, were asked to indicate which of the twelve best practices they believe would most contribute to their academic success as students (see Appendix D). This question was important because it explored how the participants felt about these best practices. The responses to all survey questions were aggregated to answer the five research questions.

Data Analysis

To answer the five research questions, IBM SPSS® Statistics 27 was utilized to analyze the survey responses. Descriptive statistics were conducted for research questions 1 and 5. Specifically these results determine (1) what percentage of students in this study contacted DSS at their public institutions of higher education and (2) which best practices students indicated as most preferred. A crosstabs procedure was used to create contingency tables for research questions 2 and 3. These two research questions examined if contacting DSS providers and administrators and/or receiving accommodations predict student's academic success.

The logistic regression model was developed to analyze data for research question 4. The model considered which of the best practices predicted students' academic success. Using logistic regression counters problems such as "nonlinearity, nonnormality, and heteroscedasticity" (Long, 2008, p.434). Addressing these problems was important because (a) participants were not normally distributed among the academic outcome variables, (b) the independent variables were categorical and not interval, (c) there was not a linear relationship between the academic outcome variables and the predictor variables, (d) the academic outcome variables were not normally distributed in each of the independent variables, (e) the academic outcome variables' outcomes were not homoscedastic for each level of the independent variables, and (f) the error terms were not normally distributed (Garson, 2016).

While some researchers recommend an alpha level of 0.005 for new social science research (Benjamin et al., 2018), other social science researchers (Laken et al., 2018) caution against using this alpha level for research with a small population. Because this is an exploratory study focusing on a small population not included in studies before, the alpha level of 0.10 was used for the logistic regression model.

Advocacy and Ethics Considerations

This study followed research guidelines for ethics set by the American Counseling Association (ACA)'s 2014 Code of Ethics, the World Professional Association for Transgender Health (WPATH), and the IRB at ECU (see Appendix A). These ethical guidelines include confidentiality, precautions to avoid injury, informed consent, the nature of the study, and accurate reporting of results. This study focuses on transgender/gender nonbinary individuals, a marginalized community with a history of being further marginalized by unethical research practices (Adams et al., 2017; Vincent, 2018). Therefore, guidelines specific to this community beyond what is recommended by the ACA, WPATH, and IRB were explored.

Adams and colleagues (2017) created criteria for the IRB to use when assessing research with transgender individuals. Vincent (2018) noted several categories for researchers to consider when conducting research with this population. The overlap between the two resources can be found in recommendations for

- knowing the historical exploitation of transgender/gender nonbinary community in research,
- including while not requiring participant/community involvement in the study's creation and implementation,
- incorporating intersectionality theory,
- being transparent, including dissemination of results and informed consent,
- protecting participant's anonymity, confidentiality, and privacy, and
- using trans-affirming, gender-inclusive language.

Consistent with those recommendations, the primary investigator for this study acknowledged the tumultuous history of research with the transgender/gender nonbinary community by putting effort into including community stakeholders on the dissertation committee. External committee

members who identify as transgender/gender nonbinary and/or are involved in ethical, successful research with the transgender/gender nonbinary community were sought.

As seen in Chapter Two, the literature review, the theoretical rationale of this study is Intersectionality Theory. An important aspect of the theory is the dissemination of research results as a follow-up of how to create societal changes to address and attempt to resolve oppression (Gopaldas, 2013; Moradi & Grzanka, 2017). The informed consent for this study included transparency about how results would be disseminated, including an invitation for participants to view the dissertation defense. Transparency about the following was included in the informed consent:

- potential risks to participants
- protection of participant confidentiality
- ways for participants to withdraw consent
- how to refuse to participate
- contact information for multiple persons to which participants can express concern
- storage of data.

Adams and colleagues (2017) indicate that protecting participant confidentiality is the most critical research aspect for the transgender/gender nonbinary community. The authors note that collecting seemingly benign information, such as race or zip code, could "place participants at serious personal risk" (Adams et al., 2017, p. 170). Therefore, other than eligibility criteria, no identifying information, including demographics, was requested. Because the survey was internet-based, there was increased anonymity and confidentiality as compared to in person surveys (Wilson et al., 2013).

Providing crisis and social services that are culturally sensitive as a part of the study is also stressed by Adams and colleagues (2017). A list of resources specific to the transgender/gender nonbinary community were included in the informed consent and at the end of the survey (see Appendix C).

Chapter Summary

The main objective of this descriptive, nonexperimental study—to identify which practices used by DSS providers and administrators predict the academic success of students at public institutions of higher education in the USA who identify as transgender/gender nonbinary and have at least one disability—is supported by the research design and methods. Additionally, this study was implemented to determine which practices those students indicated as contributing the most to their academic success. The study was conducted using a survey research method, which allowed for best practices to be compared. Thus (1) patterns of academic success for college students in public higher education who identify as transgender/gender nonbinary and have at least one disability could be identified and (2) cause and effect relationships could be suggested. The next chapter will explore in depth the results of this study.

CHAPTER 4: RESULTS

Introduction

The results of the statistical analyses that were used are described in this chapter. The chapter begins with the sampling procedures and a description of the data cleaning. Then, descriptive data for the participants' states, academic success, graduation, and accommodations are discussed. Next, results from analyses examining the five research questions are detailed. The chapter ends with a summary of the findings.

Sampling Procedures

The online survey opened January 7, 2021 and closed February 27, 2021. Eligibility was initially limited to North Carolina. Due to low response rates (n = 34), eligibility was expanded to the entire United States of America (USA) on January 29, 2021. The research study was shared via email with student affairs offices and student groups at higher education campuses. The research study was also posted on social media, in social media groups, and through paid advertising. No potentially eligible participants were identified or contacted by the researcher. A total of 209 records were started through the survey in Research Electronic Data Capture (REDCap).

Data Cleaning

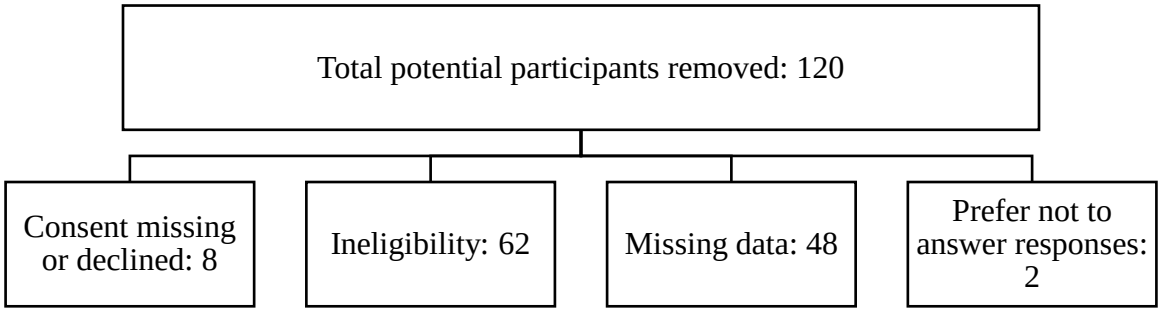
Of the 209 records, six potential participants did not pass the consent page, and two potential participants declined the consent to participate. An additional 30 potential participants did not answer the first eligibility question regarding age. One potential participant did not answer the second eligibility question regarding enrollment in at least one course at a public university or college (including community colleges) in the USA. Also, 14 potential participants answered no to this question. Two potential participants did not answer the third eligibility

question regarding transgender/gender nonbinary identity, and 14 potential participants answered no to this question. One potential participant answered no to the eligibility question about disability. Almost 33.5% (n = 70) of the original 209 records were removed.

Of the original 209 records, there were 139 eligible participants (66 %). Twenty-two participants did not answer questions about contacting disability support services (DSS) providers and administrators, receiving accommodations, or academic success. Fifteen participants did not answer any of the 12 questions regarding best practices. An additional 11 participants did not answer all 12 questions regarding best practices. Only two participants responded to questions about best practices with *prefer not to answer*. Therefore, as seen in Figure 1 57.4% of the original 209 records (n = 120) were removed due to (1) consent missing or declined, (2) ineligibility, (3) missing data, and (4) responses of prefer not to answer.

Figure 1

Records Removed During Data Cleaning



A total of 89 participants—over 42% of the original 209 records—were included in the statistical analysis, including two participants who completed all questions yet did not click the final submit button. Being a student of an institution in North Carolina was required for eligibility prior to January 29, 2021. After the eligibility was expanded to the entire USA, participants were asked about the state in which their college or university was located. Timestamps collected by REDCap were examined for participants (n = 5) who had not answered the question about institution location. Any participants who took the survey prior to January 29, 2021 were identified as students whose institution was located in North Carolina. This descriptive data is discussed below.

Descriptive Data

This section includes descriptive data for the state of students' public institution of higher education, their academic experiences, and if they received accommodations.

States

One descriptive piece of information gathered about participants was the state in which they attended the public university or college where they were recently enrolled. The location of their institution was asked instead of the location of the student to ensure confidentiality. The majority of the 89 participants included in the statistical analysis indicated they attended school in California (n = 19, 21.3%), North Carolina (n = 14, 15.7%), or Ohio (n = 12, 13.5%). Less than 10 participants indicated they attended a school in each of the following states: Arizona, Colorado, Florida, Illinois, Indiana, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, Oklahoma, Oregon, Pennsylvania, South Carolina, Texas, Virginia, Washington, West Virginia, and Wisconsin.

After the data cleaning, states not represented in this study included: Alabama, Alaska, Arkansas, Connecticut, Delaware, Georgia, Hawaii, Idaho, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Mississippi, Montana, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Dakota, Rhode Island, South Dakota, Tennessee, Utah, Vermont, and Wyoming. Three participants included after data cleaning did not indicate the state where their college or university was located. The small sample size increased the probability of identifying participants; therefore, demographic information (e.g., student location) was not collected. Further discussion can be found in Chapter 5.

Academic Outcomes

Another descriptive characteristic of the participants was academic outcomes (e.g., success, unsuccess). Students were considered to have had academic success if they did not experience (1) academic probation, (2) academic dismissal, (3) withdrawal from classes, or (4) dropping out of classes. These four experiences were added together to create a variable called academic unsuccess. From the responses to the question about academic experiences, less than half of students (39.3%) did not experience academic success (see Table 2).

Table 2

Frequencies for Academic Outcomes

Variable	Frequency	Percent	Cumulative Percent
Academic unsuccess	36	39.3	39.3
Academic success	54	60.7	100.0
Total	89	100.0	

The four experiences that were not considered academic success are discussed in detail below with a discussion in Chapter 5. The crosstabulation tables below show academic unsuccess and academic success were mutually exclusive in the data.

Academic Probation

Academic probation was experienced by 12 participants (Table 3). Of the 35 students who did not experience academic success, 34.3% experienced academic probation. The remaining 65.7% experienced at least one of the other three academic unsuccess variables.

Table 3

Crosstabulation of Academic Outcomes and Academic Probation

Variable	Academic unsuccess		Academic success		Total
	n	%	n	%	
No academic probation	23	29.9	54	70.1	77
Yes academic probation	12	100.0	0	0.0	12
Total	35	39.3	54	60.7	89

Academic Dismissal

Academic dismissal was experienced by only three students (Table 4). These students represent only 8.6% of the 35 students who did not experience academic success. Of the four variables for academic unsuccess, academic dismissal was experienced by the least number of students.

Table 4

Crosstabulation of Academic Outcomes and Academic Dismissal

Variable	Academic unsuccess		Academic success		Total
	n	%	n	%	
No academic dismissal	32	37.2	54	62.8	86
Yes academic dismissal	3	100.0	0	0.0	3
Total	35	39.3	54	60.7	89

Withdrawal from Classes

The participants who experienced withdrawal from classes made up the majority (90%) of the 35 students who experienced academic unsuccess A total of 31 students experienced withdrawal from classes (Table 5).

Table 5

Crosstabulation of Academic Outcomes and Withdrawal From Classes

Variable	Academic unsuccess		Academic success		Total
	n	%	n	%	
No withdrawal from classes	4	6.9	54	93.1	58
Yes withdrawal from classes	31	100.0	0	0.0	31
Total	35	39.3	54	60.7	89

Dropped Out of Classes

In total 22 students experienced dropping out of classes (Table 6). This variable of academic unsuccess was experienced by 62.9% of students who experienced academic unsuccess.

Table 6

Crosstabulation of Academic Outcomes and Dropped Out of Classes

Variable	Academic unsuccess		Academic success		Total
	n	%	n	%	
No dropped out of classes	13	19.4	54	80.6	67
Yes dropped out of classes	22	100.0	0	0.0	22
Total	35	39.3	54	60.7	89

Graduated

In contrast to previous longitudinal studies (Dong & Lucas, 2016; Herbert et al., 2014), this study took a cross-sectional approach. Therefore, graduation was not considered an

academic success variable. Of the 89 students included, 16.9% (n = 15) experienced graduation (Table 7). Academic unsuccess was experienced by the majority (n = 9) of the 15 students who had graduated. Chapter 5 includes further discussion.

Table 7

Crosstabulation of Academic Outcomes and Graduated

Variable	Academic unsuccess		Academic success		Total
	n	%	n	%	
No graduated	26	35.1	48	64.9	74
Yes graduated	9	60.0	6	40.0	15
Total	35	39.3	54	60.7	89

The academic unsuccess variables of academic probation and dismissal were experienced the least by participants who had graduated. Academic probation was only experienced by two students who had graduated (Table 8). None of the students who had graduated also experienced academic dismissal (Table 9).

Table 8

Crosstabulation of Graduated and Academic Probation

Variable	No graduated		Yes graduated		Total
	n	%	n	%	
No academic probation	64	83.1	13	16.9	77
Yes academic probation	10	83.3	2	16.7	12
Total	74	83.1	15	16.9	89

Table 9

Crosstabulation of Graduated and Academic Dismissal

Variable	No graduated		Yes graduated		Total
	n	%	n	%	
No academic dismissal	71	82.6	15	17.4	86
Yes academic dismissal	3	100.0	0	0.0	3
Total	74	83.1	15	16.9	89

Of the 15 students who had graduated, seven students experienced withdrawal from classes (Table 10), and seven students reported dropping out of classes (Table 11). Six of these seven students experienced both variables of academic unsuccess.

Table 10

Crosstabulation of Graduated and Withdrawal from Classes

Variable	No graduated		Yes graduated		Total
	n	%	n	%	
No withdrawal from classes	50	86.2	8	13.8	58
Yes withdrawal from classes	24	77.4	7	22.6	31
Total	74	83.1	15	16.9	89

Table 11

Crosstabulation of Graduated and Dropped Out of Classes

Variable	No graduated		Yes graduated		Total
	n	%	n	%	
No dropped out of classes	59	88.1	8	11.9	67
Yes dropped out of classes	15	68.2	7	31.8	22
Total	74	83.1	15	16.9	89

Accommodations

The final descriptive characteristic of the participants was regarding if they had received accommodations. Almost 66% (n = 58) had received accommodations, and only one student did not answer this question. Therefore, statistical analyses regarding accommodations (e.g., research question 3) included only 88 participants. A discussion on accommodations can be found in Chapter 5.

Table 12

Frequencies of the Variable Accommodations

Accommodations		Frequency	Percent	Valid percent	Cumulative percent
	No	30	33.7	34.1	34.1
	Yes	58	65.2	65.9	100.0
Valid	Total	88	98.9	100.0	
Missing	System	1	1.1		
Total		89	100.0		

Contact DSS

Only one student indicated they had received accommodations without contacting disability support services (Table 13). Eight (12.3%) of the 65 students that noted they had contacted the DSS providers and administrators at their institutions did not receive accommodations.

Table 13

Crosstabulation of Contacted DSS and Accommodations

Variable	Yes contacted DSS		No contacted DSS		Total
	n	%	n	%	
No accommodations	22	73.3	8	26.7	30
Yes accommodations	1	1.7	57	98.3	58
Total	23	26.1	65	73.9	88

Data Analysis

This section includes the results of the data analysis for each research question. Data were analyzed using descriptive statistics for research questions 1 and 5. Using contingency tables the data were structured to answer research questions 2 and 3. Research question 4 was examined with a logistic regression model.

Research Question 1

Research Question 1: What percentage of participants in this study contacted disability support services at their public university or college?

Of the 89 participants, 73% (n = 65) contacted disability support services at their public university or college. Therefore, about one of every four students did not contact DSS. A discussion of this finding is in Chapter 5.

Table 14

Frequencies of the Variable Contacted DSS

Variable	Frequency	Percent	Valid percent	Cumulative percent
No contacted DSS	24	27.0	27.0	27.0
Yes contacted DSS	65	73.0	73.0	100.0
Total	89	100.0	100.0	

Research Question 2

Research Question 2: Is there a relationship between contacting DSS providers and administrators and academic success for participants in this study?

The Cramer's V analysis (p = .233) indicated no statistically significant relationship at α = .10 between contacting DSS providers and administrators and academic success. Therefore, contacting DSS providers and administrators does not seem to predict academic success.

Table 15

Cramer's V Analysis for Relationship Between Contacting DSS and Academic Outcomes

Symmetric Measure		Value	Approximate significance
	Phi	-.126	.233
Nominal by nominal	Cramer's V	.126	.233
N of valid cases		89	

The majority (n = 65) of participants contacted DSS (Table 16). These findings are further discussed in Chapter 5.

Table 16

Crosstabulation of Academic Outcome and Contacted DSS

Variable	Academic unsuccess		Academic success		Total
	n	%	n	%	
No contacted DSS	7	20.0	28	80.0	35
Yes contacted DSS	17	31.5	37	68.5	54
Total	24	27.0	65	73.0	89

Research Question 3

Research Question 3: Is there a relationship between receiving accommodations and academic success for participants in this study?

There is no statistically significant relationship at $\alpha = 0.10$ between receiving accommodations from DSS providers and administrators and academic success according to the Cramer's V analysis ($p = 0.178$). Thus, any relationship between the two is likely due to chance.

Table 17

Cramer's V Analysis for Relationship Between Accommodations and Academic Outcomes

Symmetric Measure		Value	Approximate significance
Nominal by nominal	Phi	-.144	.178
	Cramer's V	.144	.178
N of valid cases		88	

Of the 88 participants who answered the question about accommodations, 58 received accommodations (Table 18). The next chapter explores these findings, including a discussion about students who contacted DSS and did not receive accommodations.

Table 18

Crosstabulation of Academic Outcome and Accommodations

Variable	Academic unsuccess		Academic success		Total
	n	%	n	%	
No accommodations	9	25.7	26	74.3	35
Yes accommodations	21	39.6	32	60.4	53
Total	30	34.1	58	65.9	89

Research Question 4

Research Question 4: Which of the 12 best practices increased the probability of academic success for participants in this study?

These three best practices were found to increase the probability of academic success for the participants: career, facilities, and inclusion. The following paragraphs explain the process of how the three predictor variables were obtained. Logistic regression was used to predict the probability that a participant would have academic success using 12 categorical predictor variables. The predictor variables were created from the 10 best practices proposed by Mizock and colleagues (2013). The categorical predictor variables had levels of *do not know* (reference), *no*, and *yes*. This analysis was conducted in three phases. First, the 12 best practices were analyzed as predictors using backward stepwise logistic regression (b-step LR); Next, the 12 best practices were re-analyzed with forward stepwise logistic regression (f-step LR). Finally, the results of the b-step LR and f-step LR were compared. Because this is an exploratory study focusing on a small population that has not been included in studies before, the alpha level of 0.10 was used for the logistic regression model.

The 12 best practices were first entered into the b-step LR model, and the least statistically significant predictors were removed one by one until the remaining variables met the

threshold of $p \leq .10$. There were eight steps total with one predictor variable removed in each of the last seven steps. The seven predictor variables removed in these steps were: welcoming, unbiased, trainings, counseling, transgender, advocate, and assessment. As seen in Table 19, they were not statistically significant at $p \leq .10$. Five predictor variables were significant (Table 20) in step 8 of the b-step LR: career (Wald $\chi^2 = 7.78$, $p = .02$), facilities (Wald $\chi^2 = 6.42$, $p = .04$), inclusion (Wald $\chi^2 = 4.69$, $p = .10$), confidentiality (Wald $\chi^2 = 5.82$, $p = .05$), and disability (Wald $\chi^2 = 5.53$, $p = .06$) were statistically significant at $p \leq .10$. This means that for these five predictor variables, at least one of the levels was significantly related to academic success.

Recall that the three levels of categorical predictor variables were: *do not know* (reference), *no*, and *yes*. The following outlines each of these three levels by variable. Both no (Wald $\chi^2 = 3.03$, $p = .08$) and yes (Wald $\chi^2 = 7.78$, $p = .01$) were significant in career. Facilities also had both no (Wald $\chi^2 = 6.27$, $p = .01$) and yes (Wald $\chi^2 = 3.39$, $p = .07$) as significant. For inclusion, no (Wald $\chi^2 = 4.57$, $p = .03$) was significant and yes (Wald $\chi^2 = 0.94$, $p = .33$) was not. Confidentiality had no (Wald $\chi^2 = 0.61$, $p = .44$) as not significant and yes (Wald $\chi^2 = 5.82$, $p = .02$) as significant. The same was true for disability: no (Wald $\chi^2 = 1.44$, $p = .23$) was not significant and yes (Wald $\chi^2 = 5.30$, $p = .02$) was.

Table 19

Not Significant Predictor Variables

Variable	step 1	
	Coeff. (*SE*)	*p*
Welcoming	Reference	.50
Welcoming (no)	-2.09 (1.81)	.25
Welcoming (yes)	-1.42 (1.36)	.30
Unbiased	Reference	.38
Unbiased (no)	-0.30 (1.30)	.82
Unbiased (yes)	-1.35 (1.07)	.21
Trainings	Reference	.62
Trainings (no)	-0.49 (0.99)	1.00
Trainings (yes)	0.00 (1.19)	1.00
Counseling	Reference	1.00
Counseling (no)	0.03 (1.00)	.98
Counseling (yes)	0.05 (1.25)	.97
Transgender	Reference	.68
Transgender (no)	0.84 (0.96)	.38
Transgender (yes)	0.28 (1.13)	.80
Advocate	Reference	.66
Advocate (no)	0.70 (1.07)	.51
Advocate (yes)	-0.17 (1.03)	.87
Assessment	Reference	.35
Assessment (no)	1.83 (1.28)	.15
Assessment (yes)	0.83 (0.99)	.40
Constant	1.11 (0.77)	.15

Table 20

Significant Predictor Variables

Variable	B-step LR step 1		B-step LR step 8		F-step LR step 3		
	Coeff. (*SE*)	*p*	*Coeff.* (*SE*)	*p*	*Coeff.* (*SE*)	*p*	*Exp(B)*
Career	Reference	.03	Reference	.02	Reference	.04	
Career (no)	-2.36 (1.16)	.04	-1.53 (0.88)	.08	-1.09 (0.71)	.12	0.34
Career (yes)	-2.69 (1.02)	.01	-2.24 (0.80)	.01	-1.73 (0.69)	.01	0.18
Facilities	Reference	.07	Reference	.04	Reference	.03	
Facilities (no)	2.96 (1.34)	.03	2.66 (1.06)	.01	2.23 (0.93)	.02	9.32
Facilities (yes)	1.72 (0.95)	.07	1.49 (0.81)	.07	1.82 (0.74)	.01	6.15
Inclusion	Reference	.30	Reference	.10	Reference	.10	
Inclusion (no)	-1.57 (1.04)	.13	-1.62 (0.76)	.03	-1.46 (0.71)	.04	0.23
Inclusion (yes)	-0.63 (1.13)	.58	-0.80 (0.83)	.33	-0.54 (0.73)	.46	0.58
Confidentiality	Reference	.04	Reference	.05	-	-	-
Confidentiality (no)	1.27 (1.75)	.47	1.09 (1.40)	.44	-	-	-
Confidentiality (yes)	3.45 (1.41)	.01	1.87 (0.78)	.02	-	-	-
Disability	Reference	.12	Reference	.06		-	-
Disability (no)	-2.08 (1.44)	.15	-1.20 (1.00)	.23	-	-	-
Disability (yes)	-1.53 (0.80)	.06	-1.42 (0.62)	.02	-	-	-
Constant	1.11 (0.77)	.15	0.75 (0.67)	.26	0.79 (0.60)	.19	2.20

After completing the b-step LR, the 12 best practices predictors were re-analyzed with f-step LR. This statistical procedure begins with only the intercept and no predictors. The analysis searches through the predictors to find the predictor with the lowest *p*-value and then enters that variable into the model. This process of entering significant variables into the model continued until all predictors with $p \leq .10$ were entered into the model. Only three of the 12 best practice predictors were significant at $p \leq .10$ (Table 20) in the f-step LR: career (Wald $\chi^2 = 6.24$, $p = .04$), facilities (Wald $\chi^2 = 7.17$, $p = .03$), and inclusion (Wald $\chi^2 = 4.54$, $p = .10$). Therefore, at

least one of the levels was significantly related to academic success for each of these three predictor variables.

Recall that attribute variables have levels and that the levels were: *do not know* (reference), *no,* and *yes*. The following outlines each of these three levels by variable in the f-step LR. For career, no (Wald $\chi^2 = 2.39$, $p = .12$) was not significant and yes (Wald $\chi^2 = 6.23$, $p = .01$) was significant. This differs from the previous model in that no for career was significant in the b-step LR. Both no (Wald $\chi^2 = 5.77$, $p = .02$) and yes (Wald $\chi^2 = 6.08$, $p = .01$) were again significant for facilities. And inclusion again had no (Wald $\chi^2 = 4.18$, $p = .04$) as significant and yes (Wald $\chi^2 = 0.54$, $p = .46$) as not significant.

As recommend by Henderson and Denison (1989) and Zhang (2016), the best practice predictor variables from the b-step (step 8) and f-step (step 3) LRs final models were compared. The model with three predictor variables—career, facilities, and inclusion—appeared to provide the most parsimonious answer to research question 4. A test of the three-predictor model versus a model with intercept only was statistically significant in Table 21, $\chi 2$ (6, N = 89) = 16.34, $p = .012$.

Table 21

Omnibus Tests of Model Coefficients for f-step LR

	Chi-square	df	Sig.
Step 1			
Step	4.797	2	.091
Block	4.797	2	.091
Model	4.797	2	.091
Step 2			
Step	6.579	2	.037
Block	11.376	4	.023
Model	11.376	4	.023
Step 3			
Step	4.965	2	.084
Block	16.341	6	.012
Model	16.341	6	.012

The Classification Table (Table 22) shows that in step 3 where the predicted event of academic success was observed, (49/54) 90.7% of the participants were correctly classified by the f-step LR. This classification is known as the sensitivity of prediction, that is, the percentage of occurrences correctly predicted. Also, (14/35) 40% of the participants where the predicted outcome was academic unsuccess were correctly classified. This is known as the specificity of prediction or the percentage of non-occurrences correctly predicted. Overall, the f-step LR predictions were correct 63 out of 89 times, for an overall success rate of 70.8%. While the

model classified only 70.8% of cases correctly, this was 10% more than for the model with intercept only (60.7%) as seen in Table 23.

Table 22

Classification Table for f-step LR Block 1

	Observed		Predicted		
			Academic outcome		Percentage correct
			Unsuccess	Success	
Step 1	Academic outcome	Unsuccess	0	35	.0
		Success	0	54	100.0
	Overall percentage				60.7
Step 2	Academic outcome	Unsuccess	9	26	25.7
		Success	2	52	96.3
	Overall percentage				68.5
Step 3	Academic outcome	Unsuccess	14	21	40.0
		Success	5	49	90.7
	Overall percentage				70.8

Table 23

Classification Table for f-step LR Block 0

Observed			Predicted		
			Academic outcome		Percentage correct
			Unsuccess	Success	
Step 1	Academic outcome	Unsuccess	0	35	.0
		Success	0	54	100.0
	Overall percentage				60.7

Key Points

The odds ratios of three best practice predictor variables were used to interpret the model (Table 20). The facilities variable appears to provide more information than the career variable about the participants' probability of academic success. Similarly, the career variable appears to provide more information than inclusion variable about the participants' probability of academic success. Specifically,

- Participants who did not know if their DSS providers and administrators ensured students' inclusion in campus activities and groups (i.e., do not know) were 4.31 times more likely to experience academic success than for students whose DSS providers and administrators did not ensure students' inclusion in campus activities and groups (i.e., no)
- Participants who did not know if their DSS providers and administrators offered to connect students with career counseling and other vocational supports (i.e., do not know) were 5.62 times more likely to experience academic success than for

students whose DSS providers and administrators offered to connect students with career counseling and other vocational supports (i.e., yes)

- Participants whose DSS providers and administrators did *not* ensure that school facilities were accessible for students (i.e., no) were 9.32 times more likely to experience academic success than for participants who did not know if their DSS providers and administrators ensure that school facilities were accessible for students (i.e., do not know)
- Participants whose DSS providers and administrators did ensure that school facilities were accessible for students (i.e., yes) were 6.15 times more likely to experience academic success than for participants who did not know if their DSS providers and administrators ensure that school facilities were accessible for students (i.e., do not know)

The implications of these findings are discussed in further detail in Chapter 5.

Research Question 5

Research Question 5: Which practices do participants in this study indicate they believe would contribute to their academic success?

Participants were given a list of the 12 best practices suggested by Mizock and colleagues (2013) and an option to write in additional best practices not listed. The following findings are separated into (1) quantitative responses for which participants endorsed or did not endorse the best practices and (2) qualitative responses that participants noted as additional best practices.

Quantitative Responses

Participants could endorse as many items as they wanted. In Table 24 below, the practices were sorted in descending order (i.e., highest to lowest frequencies) according to the

number of participants who endorsed each practice. Almost 70% of participants endorsed the best practice of hiring staff who openly identify as having a disability. Other best practices that received an endorsement from over half of the participants were (1) creating a welcoming environment, (2) hiring staff who openly identify as transgender/gender nonbinary, (3) effectively advocating for your needs by monitoring your school's ongoing services and policies, (4) using unbiased behaviors, and (5) enduring that school facilities are accessible for you. At least one out of every three students endorsed the following best practices: (1) indicating the offices' participation in trans* affirmative trainings, (2) ensuring your inclusion in campus activities and groups, (3) protecting your confidentiality, (4) offering to connect you with culturally sensitive counseling. The best practice that was endorsed by the least (25.8%) number of participants was offering to connect you with career counseling and other vocational supports. A discussion about possible reasons for these endorsements and implications is included in Chapter 5.

Table 24

Endorsement of Best Practices by Participants

Best practice	Endorsed		Not endorsed		Total
	Count	Row N %	Count	Row N %	Total N
Hiring staff who openly identify as having a disability	62	69.7%	27	30.3%	89
Creating a welcoming environment	58	65.2%	31	34.8%	89
Hiring staff who openly identify as transgender/gender nonbinary	55	61.8%	34	38.2%	89
Effectively advocating for your needs by monitoring your school's ongoing services and policies	52	58.4%	37	41.6%	89
Using unbiased behaviors	50	56.2%	39	43.8%	89
Using unbiased assessment procedures that provide you equal access to DSS services	46	51.7%	43	48.3%	89
Ensuring that school facilities are accessible for you	45	50.6%	44	49.4%	89
Indicating the offices participation in trans* affirmative trainings	43	48.3%	46	51.7%	89
Ensuring your inclusion in campus activities and groups	41	46.1%	48	53.9%	89
Protecting your confidentiality	34	38.2%	55	61.8%	89
Offering to connect you with culturally sensitive counseling	34	38.2%	55	61.8%	89
Offering to connect you with career counseling or other vocational supports	23	25.8%	66	74.2%	89

Qualitative Responses

Four of the 89 participants selected the option for additional practice(s) and each gave a brief, written response when asked "Considering disability support services generally, which of the following practices used by DSS providers and administrators do you believe would most contribute to your success as a student?" The responses included responsiveness, advocacy, and accessibility from DSS providers and administrators. One participant indicated that the DSS providers and administrators at their public university or college never responded to the student's initial communication. Another participant noted that advocacy was needed when faculty did not honor the student's accommodations. Two participants acknowledged several ways DSS providers and administrators can make their services more accessible for students. Suggestions included (1) making information easier to find and read, (2) technical assistance for registering with DSS and completing the necessary paperwork, and (3) access to affordable diagnostic testing. Direct quotes from participants are not included due to confidentiality—the informed consent did not specify that students' comments would be used verbatim. The implications of these qualitative responses can be found in the next chapter.

Summary

This study examined which practices used by DSS providers and administrators predicted the academic success of students in higher education who identify as transgender/gender nonbinary and have at least one disability. Participants were also asked to endorse which actions or services provided by DSS they believed would contribute the most to their academic success.

A little over half of the students (n = 45, 50.5%) were enrolled in higher education institutions located in California, North Carolina, and Ohio. The majority of participants (n = 48, 53.9%) indicated they experienced academic success, almost 17% (n = 15) experienced graduation, and most received accommodations (n = 58, 66%). The students who did not have

academic success (n = 35) reported academic probation (n = 12), academic dismissal (n = 3), withdrawal from classes (n = 31), and dropping out of classes (n = 22). Of the 15 students who had graduated: (1) two students also reported academic probation, (2) zero students indicated academic dismissal, (3) seven students noted withdrawal from classes, and (4) seven students acknowledged dropping out of classes.

Research question 1 results indicated that the majority of students (n = 65, 73%) contacted DSS providers and administrators at their institution of higher education.

Research question 2 findings indicated no statistically significant relationship between contacting DSS providers and administrators and academic success.

Research question 3 outcomes indicated no statistically significant relationship between receiving accommodations from DSS providers and administrators and academic success.

To examine research question 4, a backward stepwise logistic regression and forward stepwise logistic regression analyses were conducted. The two models were compared to determine which practices increase the probability of academic success for students. Three of the 12 best practices proposed by Mizock and colleagues (2013) demonstrated statistical significance. When participants did not know if their DSS providers and administrators ensured students' inclusion in campus activities and groups, they were over four times more likely to experience academic success than students whose DSS providers and administrators did not ensure students' inclusion in campus activities and groups. Also, when participants did not know if their DSS providers and administrators offered to connect students with career counseling and other vocational supports, they were almost six times more likely to experience academic success than students whose DSS providers and administrators offered to connect students with career counseling and other vocational supports. Finally, when participants' DSS providers and

administrators did and did not ensure that school facilities were accessible for students, they were six and 9 times more likely to experience academic success respectively than when students did not know if their DSS providers and administrators ensured that school facilities were accessible for students.

Research question 5 was answered with quantitative and qualitative responses regarding which practices students believed would contribute to their academic success. The best practice endorsed by the most participants (69.7%) was hiring staff who openly identify as having a disability. Four of the 89 participants selected the option for additional practice(s). They gave qualitative responses when asked "Considering disability support services generally, which of the following practices used by DSS providers and administrators do you believe would most contribute to your success as a student?" The responses included responsiveness, advocacy, and accessibility from DSS providers and administrators. The next chapter discusses the findings from these statistical analyses.

CHAPTER 5: DISCUSSION

Introduction

This chapter begins with a summary of the study. Then, interpretations of the results are given for the descriptive data and research questions. This is followed by a synopsis of the findings from the research questions. Next, limitations of the study, implications of the study, and future research suggestions are discussed. The chapter ends with a final conclusion of the study.

Summary of the Study

This descriptive nonexperimental study was conducted using a survey research design to identify which practices used by DSS providers and administrators predict the academic success of participants—students who identify as transgender/gender nonbinary and have at least one disability in public institutions of higher education in the United States of America (USA). Additionally, other potential contributing variables to academic success were examined, and students were asked to identify which practices they believed contributed the most to their academic success.

This study used intersectionality theory to provide a theoretical framework for understanding academic success for higher education students who identify as transgender/gender nonbinary and have at least one disability. The identities of gender identity and disability status are viewed as marginalized, or oppressed by systems of power (Moradi & Grzanka, 2017). When intersectionality theory is applied to this study, disability support services (DSS) providers and administrators represented the system of power because they are the gatekeepers for students receiving accommodations and as such could be a contributing factor to academic success. Therefore, according to intersectionality theory, academic success for the

participants is affected by differing (e.g., supportive, unsupportive) treatment from DSS providers and administrators due to the participants' intersecting identities.

The current sample consisted of 89 participants who took an online survey between January 7, 2021 and February 27, 2021. Due to the small sample and online nature of this study, participants were selected using two nonprobability sampling strategies: convenience sampling and purposive sampling (Barratt et al., 2015; Miner et al., 2012). Participants indicated their consent to the survey and then completed four eligibility questions before moving onto questions used in the statistical analyses.

The survey included questions about (1) the state in which participants attended their institution of higher education, (2) if they contacted their DSS providers and administrators, (3) if they received accommodations, and (4) their academic experiences. Participants were asked if their DSS providers and administrators followed 12 best practices proposed by Mizock and colleges (2013) and which practices they felt would contribute to their academic success. Descriptive statistics (i.e., frequencies, crosstabulations) were run to determine (1) what percentage of participants contacted DSS, (2) if contacting DSS providers and administrators predicts student's academic success, (3) if receiving accommodations predicts student's academic success, and (4) which best practices students endorsed as most preferred. A logistic regression model was utilized to examine which practices predict students' academic success. Students who did not experience academic success reported academic probation, academic dismissal, withdrawal from classes, and dropping out of classes. The following section includes interpretations of the results.

Interpretation of Results

This section includes a discussion of the results from the statistical analysis reported in the previous chapter. First, this section discusses descriptive data for the participants. This discussion is followed by the results for each of the five research questions.

Descriptive Data

This section reports the descriptive data for students' locations of higher education institutions, academic experiences, graduation, and accommodations. While this information was not part of the research questions, the results provide insight into the participants' experiences.

States

Recruitment began with outreach to all of the public universities and colleges in North Carolina. Twenty-two days later the recruitment was expanded to the remaining 49 states in the USA. Due to this change a question was added to the survey to gather the location (i.e., state) of students' higher education institutions. Over 300 emails were sent to student affairs offices and student groups at campuses across the nation. Additionally, posts were made on social media and in social media groups. Out of the 50 states in the USA, almost half (n = 22) were represented in the final sample. Approximately half (n = 45, 50.6%) of the participants noted their institution was in California, North Carolina, or Ohio. The remaining participants indicated they attended schools in the following states: Arizona, Colorado, Florida, Illinois, Indiana, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, Oklahoma, Oregon, Pennsylvania, South Carolina, Texas, Virginia, Washington, West Virginia, and Wisconsin. Initial outreach was focused solely on North Carolina, which explains the large representation from that state. Public universities and community colleges in California and Ohio were the most responsive to outreach, explaining the large representation from those states. Future research could use a more robust sample with participants from all 50 states. This research could focus on comparing and contrasting different states and/or regions of the USA.

Academic Outcomes

Participants indicated a range of academic experiences. A little over half of the students (n = 48, 53.9%) indicated they had experienced academic success—the absence of (1) academic probation, (2) academic dismissal, (3) withdrawal from classes, or (4) dropped out of classes. Students who did not have one of these three experiences were considered to have academic success. No students who indicated academic success also selected any of the four unsuccessful categories. Of the 35 students who did not note academic success, 12 reported academic probation, three indicated academic dismissal, 31 acknowledged withdrawal from classes, and 22 specified dropping out of classes. Dong and Lucas (2016) looked at academic success for students who contacted DSS providers and administrators at one higher education institution. The authors' definition of academic success was used in this study. Making comparisions of the current study to studies that operationally defined academic success differently (e.g., grade point average [GPA]) would be inaccurate due to the varying requirements of higher education institutions. For example, academic programs have different GPA thresholds, determined by each program, and some graduate schools do not use GPAs.

Dong and Lucas (2016) found that around 77.4% of students with disabilities in their study experienced academic success. Those results are much higher than the 53.9% of students who experienced academic success in this study. This difference could be the result of additional barriers created by systems of power concerning the additional marginalized identity (e.g., transgender/gender nonbinary) experienced by the participants in the current study per intersectionality theory (Cory, 2011). However, caution should be used when comparing this study to that of Dong and Lucas. Those authors tracked the academic success of students over four semesters, which is longitudinal research, whereas the current study is cross-sectional.

To protect the students' confidentiality, this study did not follow students over several semesters. However, a question about graduation was included for descriptive data. The operationalized definition of academic success did not include graduation because students can graduate from higher education while also having experienced academic unsuccess (i.e., academic probation, academic dismissal, withdrawal from classes, dropping out of classes). Of the 89 participants, graduation was reported by 15 (16.9%). Of these 15 students, two experienced academic probation, none experienced academic dismissal, seven experienced withdrawal from classes, and seven experienced dropping out of classes. Comparing these percentages to other studies would be inaccurate because the current study did not ask the students' current standing (e.g., semester, year, non-student) and could not be used for reference.

Accommodations

Students were asked if they had received accommodations. Only one student from the total sample did not answer this question. Of the 88 students who responded to this question, the majority (n = 58, 66%) noted they had received accommodations from their DSS providers and administrators. Overall, participants received accommodations at a higher rate than students from the National Longitudinal Transition Study-2 (NLTS2). Newman & Madaus (2015) report that only 23% of students with disabilities in higher education received accommodations. This percentage is almost three times lower than the percentage of participants who reported receiving accommodations (66%) in the current study. The reason for this could be the differences in types of institutions of higher education researched. While this study only focused on public community colleges and universities, the NLTS2 included public and private institutions and postsecondary career and technical education schools. Newman and Madaus note that only 15% of students at the postsecondary career and technical education schools received accommodations.

Only one of the 58 students who indicated they had received accommodations noted that they had done so without contacting disability support services. This student may have asked for accommodations from professors without contacting their DSS provider and administrator. Also, someone else may have facilitated contacting DSS and applying for the student's accommodations. To summarize, of the 65 participants who had contacted DSS providers and administrators at their institutions, 12.3% did not receive accommodations. Overall, the percentage of not receiving accommodations in this study is much higher than for the students with disabilities surveyed by the National Longitudinal Transition Study-2 (NLTS2). Newman & Madaus (2015) report that only 6% of students with disabilities in higher education requested and did not receive accommodations. Again, these differences in the percentage of accommodation outcomes could occur because of differences in higher education institutions or the surveys' different approaches to marginalized identities. This study only included public community colleges and universities. In contrast, the NLTS2 included public and private institutions and postsecondary career and technical education schools. In the current study, additional barriers to obtaining accommodations may have been precipitated by reactions of the systems of power to their other marginalized identity (i.e., transgender/gender nonbinary).

Research Questions

Research Question 1

Research Question 1: What percentage of participants in this study contacted disability support services at their public university or college?

A descriptive analysis was conducted to determine what percentage of students contacted disability support services at their public university or college. Students who contacted DSS providers and administrators at their higher education institution made up 73% of the sample (n

= 65). This is about twice that of findings from the NLTS2. Newman & Madaus (2015) found that only 35% of students with disabilities disclosed their disability to their higher education institution.

There are many reasons why differences were found between the current study and NLTS2. Dissimilarities in types of institutions of higher education surveyed may be one reason for the different rates. The current study only included public community colleges and universities. In contrast, the NLTS2 included public and private institutions and postsecondary career and technical education schools. Also, DSS providers and administrators at higher education institutions in the late 2010s and early 2020s may be better at reaching students with disabilities. Some student-related reasons for this difference could be that students in this study were: (1) more open to disclosing their disabilities, (2) more likely to need accommodations, and (3) more likely to want accommodations. Also, students who identify as transgender/gender nonbinary may be more open to disclosing their disabilities. The current increase in distance education and technology due to the coronavirus pandemic may be another reason students in the current study contacted DSS at higher rates (Dhawan, 2020). Future research through qualitative or quantitative measures could explore these potential reasons for differences in receiving accommodations.

Additional research could compare percentages of contacting DSS providers and administrators amongst various student statuses such as undergraduate, graduate, and professional. More specifically, the year in which students are currently (e.g., first year, senior year) could be examined for differences in contacting DSS. Future research could explore the rates of contacting DSS between students with varying identities, such as gender identities and identity related to disability status. Different rates of contacting DSS providers and

administrators by students with different disabilities (e.g., deafness, psychological) might also be found.

Notably, about one in four students from this study did not contact DSS providers and administrators. A student may not contact DSS for several reasons: (1) students do not view DSS as helpful, (2) they anticipate being discriminated against, (3) they have not had to request accommodations before, or (4) they may be concerned about the repercussions of requesting accommodations. Although this list is not exhaustive, it demonstrates various reasons students have for not contacting DSS. Future research in this area could clarify the reasons students do not contact DSS, as well as identify differences between students who do and do not contact DSS providers and administrators. Additional research could explore solutions to reasons why students do not contact DSS. For example, perhaps more outreach to students is needed to address any concerns they have about requesting accommodations.

Research Question 2

Research Question 2: Is there a relationship between contacting DSS providers and administrators and academic success for participants in this study?

A descriptive analysis was conducted to determine if contacting DSS providers and administrators increased the probability of academic success for students. A relationship between contacting DSS providers and administrators and academic success was not found to be statistically significant. Nevertheless, when examining the frequencies show in the descriptive data, participants who both contacted DSS and had academic success represented over 40% of the sample.

Comparing previous studies to this study would be challenging because varying operationalized definitions of academic success were used. Future research using a standardized definition of academic success could compare rates of academic success between students who contact DSS providers and administrators and students who do not. Another area to explore further is differences in academic success between undergraduate, graduate, and professional students. These investigations could include examining differing program years, such as first- and second-year master's students Additional research could examine academic success and the type of contact made to DSS providers and administrators, such as phone calls, emails, and online form submissions. With regard to their academic success and rates of contacting DSS providers and administrators, students could be compared according to their gender identities. A final area of exploration could include comparing academic success amongst students with different disabilities who contact DSS.

Research Question 3

Research Question 3: Is there a relationship between receiving accommodations and academic success for participants in this study?

A descriptive analysis was conducted to determine if receiving accommodations from DSS providers and administrators increased the probability of academic success for students. The relationship between receiving accommodations from DSS providers and administrators and academic success was not found to be statistically significant. Thus, one cannot predict academic success for students in this study based upon whether or not they received accommodations. Nevertheless, when examining frequencies of the 88 participants who responded to the question about accommodations, 32 students received accommodations and experienced academic success.

Comparing previous students to this study would be difficult because other studies operationalized the definitions of academic success differently. A standardized definition of academic success, such as that used in Dong and Lucas (2016), would help future research compare results concerning receiving accommodations for students who identify as transgender/gender nonbinary and as having at least one disability. Another major area of exploration could include why students did not receive accommodations. Additional research could compare academic success rates amongst different accommodations (e.g., extra time on tests, note taker). Areas to explore further in research include differences in accommodation needs between undergraduate, graduate, and professional students or between coursework and fieldwork (e.g., practicum, internship). New research may also find differences between various gender identities and different disabilities.

Research Question 4

Research Question 4: Which of the 12 best practices increased the probability of academic success for participants in this study?

In 2013 Mizock and colleagues published "Brief Report on Transgender Students with Disabilities: Best Practices for Higher Education." The authors compiled 10 best practices based upon previously published research and after searching several databases, no empirical research to date has explored which of Mizock and colleagues' (2013) best practices lead to student academic success. The 10 best practices were used to create 12 variables for backward and forward stepwise logistic regression analyses. The analyses were conducted to determine which of the 12 practices increased the probability of students' academic success. Using the protocol recommended by several quantitative researchers (Henderson & Denison, 1989; Zhang, 2016), the backward and forward stepwise regression results were compared. The forward stepwise

logistic regression model appeared to be the most parsimonious. This model also appeared to be statistically appropriate because the Hosmer-Lemeshow goodness of fit test indicated the model adequately fit the data. Also, the classification table showed that the model had an overall success rate of 70.8%, which was 10% better than the model with intercept only (60.7%).

Not Significant Predictor Variables. There were nine predictor variables not found to be significant in the forward stepwise logistic regression model. The three answers to these questions explored were *do not know*, *no*, and *yes*. *Do not know* was used as the reference in the logistic regression. Two predictor variables were found to be significant in the backward stepwise logistic regression model, yet not found to be significant in the forward stepwise logistic regression model—confidentiality and disability. These two variables represented the following questions from the survey:

- Do the DSS providers and administrators protect your confidentiality?
- Do the DSS providers and administrators hire staff who openly identify as having a disability?

As indicated in Chapter 4, these two variables were not included in the final model and thus only the frequencies can be discussed. The majority (71.9%) of participants indicated that yes the DSS providers and administrators at their institution protected their confidentiality, almost a quarter (23.6%) did not know, and only four participants said no. In Chapter 4, protecting your confidentiality was found to be endorsed by only a small number of participants as a best practice that would contribute to their academic success (Table 24). This result is discussed further in the next section. Almost half (49.4%) of participants noted that they did not know if the DSS providers at their institution hire staff who openly identify as having a disability, over one third (36.0%) indicated yes, and 13 participants noted no. Hiring staff who

opening identify as having a disability was endorsed by the largest number of participants, as seen in Table 24. In the next section, this result is expanded upon.

Only the descriptive results can be explored for the seven remaining predictor variables not found to be significant in either the backward or the forward stepwise logistic regression models. The following questions from the survey were represented by the seven variables—welcoming, unbiased, trainings, counseling, transgender, advocate, and assessment:

- Do the DSS providers and administrators create a welcoming environment?
- Do the DSS providers and administrators use unbiased behaviors?
- Do the DSS providers and administrators indicate their participation in trans* affirmative trainings?
- Do the DSS providers and administrators offer to connect you with culturally sensitive counseling services?
- Do the DSS providers and administrators hire staff who openly identify as transgender/gender nonbinary?
- Do the DSS providers and administrators effectively advocate for your needs by monitoring your school's ongoing services and policies?
- Do the DSS providers and administrators use unbiased assessment procedures that provide you equal access to DSS services?

DSS providers and administrators were found to have created a welcoming environment by the majority (62.9%) of participants. Almost 20% of participants noted no or that they did not know. In Chapter 4, a welcoming environment was found to be endorsed by the majority (65.2%) of participants as a best practice that would contribute to their academic success (Table 24). In the next section, this result is discussed further. DSS providers were found to have use unbiased

behaviors by almost half (47.2%) of participants. Over one third (38.2%) indicated they did not know, and 13 participants noted no. Using unbiased behaviors was endorsed by a little over half (56.2%) of participants, as seen in Table 24. In the next section, this result is expanded upon.

Almost half (43.8%) of participants noted that no the DSS providers and administrators at their institution did not indicate their participation in trans affirmative trainings. Almost 40% of participants noted they did not know and only 15 participants noted yes. In Chapter 4, indicating participation in trans affirmative trainings was found to be endorsed by slightly less than half (48.3%) of participants as a best practice that would contribute to their academic success (Table 24). In the next section, this result is expanded upon. Almost on quarter (24.7%) of participants noted that yes the DSS providers at their institution offer to connect them with culturally sensitive counseling services, almost one third (30.3%) indicated they did not know, and almost half (44.9%) of participants noted no. Offering to connect students with culturally sensitive counseling services was the second least (38.2%) endorsed best practices by participants, as seen in Table 24. This result is expanded upon in the next section.

- Do the DSS providers and administrators hire staff who openly identify as transgender/gender nonbinary?
- Do the DSS providers and administrators effectively advocate for your needs by monitoring your school's ongoing services and policies?
- Do the DSS providers and administrators use unbiased assessment procedures that provide you equal access to DSS services?

Over half (58.4%) of participants did not know if the DSS providers and administrators at their institutions hired staff who openly identify as transgender/gender nonbinary. Almost one third (31.5%) noted no and only 9 participants indicated yes. Hiring staff who openly identify as

transgender/gender nonbinary was endorsed by almost 62% of participants, as seen in Table 24. In the next section, this result is expanded upon. DSS providers and administrators were found to effectively advocate for participants' needs by monitoring their institution's ongoing services and policies by almost a third (33.7%) of participants. Almost half (46.1%) of participants did not know and 18 participants noted no. In Chapter 4, effectively advocating for their needs by monitoring their institution's ongoing services and policies was found to be endorsed by over half (58.4%) of participants as a best practice that would contribute to their academic success (Table 24). In the next section, this result is further discussed. About 40% of participants did not know if DSS providers and administrators used unbiased assessment procedures. Another 40% of participants indicated yes, and 16 participants noted no. Table 24 shows that a little over half (51.7%) of participants endorsed using unbiased assessments procedures as a best practice that would contribute to their academic success. This result is expanded upon in the next section.

Significant Predictor Variables. The three predictor variables found to be significant in the forward stepwise logistic regression model—career, inclusion, and facilities—were significant in the backward stepwise logistic regression model. These three variables represented the following questions from the survey:

- Do the DSS providers and administrators offer to connect you with career counseling or other vocational supports? (career)
- Do the DSS providers and administrators ensure your inclusion in campus activities and groups? (inclusion)
- Do the DSS providers and administrators ensure that school facilities are accessible for you? (facilities)

The three answers to these questions explored were also *do not know*, *no*, and *yes*. Again, *do not know* was used as the reference in the logistic regression.

The following is concerning the question "Do the DSS providers and administrators offer to connect you with career counseling or other vocational supports?" Students who answered *do not know* were almost six times more likely to have academic success than students who answered *yes*. This result challenges the thought that uncertainty is unhelpful because unsure students were more likely to have academic success than students who responded affirmatively. Future research could compare results for this same question with students' career uncertainty. For example, suppose the majority of participants were second year graduate students. In that case, they may have less uncertainty about their career and thus not be as concerned about being connected with career counseling or other vocational supports. Anderson and Schreiner (2000) found that certainty about the choice of major for undergraduate sophomore students was found to contribute to those students' academic success. Therefore, if most participants would have been sophomores, the results may have been very different. The differences in these students' comfort levels with their career choice could affect their academic success based upon their access to career counseling or other vocational supports. An operationalized definition of academic success would be needed in future research. Anderson and Schreiner (2000) defined academic success in terms of grades. In contrast, the current study did not consider students' grades to be a part of academic success.

Similarly, students who answered *do not know* to the question "Do the DSS providers and administrators ensure your inclusion in campus activities and groups?" were over four times more likely to have academic success than students who answered *no*. Unsure students were more likely to have academic success than students who answered negatively, again challenging

the notion that uncertainty is unhelpful. In this case the uncertainty of inclusion in campus activities and groups may be more helpful than participants knowing that their inclusion is not being ensured. Previous research has found that uncertainty can promote academic achievement in certain groups of students (Kornilova et al., 2015). In future research the results for this question could be compared with students' perceptions of how inclusive the activities and groups are at their institutions of higher education. Social involvement, which includes participation in student activities and groups, has been shown to improve academic performance and retention (Lotkowski et al., 2004), including students with marginalized identities (Baker, 2008). Perhaps a similar relationship could be found in future research specifically for students who identify as transgender/gender nonbinary and have at least one disability. Consideration for additional research in this area is that an operationalized definition of academic success, such as that from this study and Dong and Lucas (2016), would be needed. Both Lotkowski and colleagues (2004) and Baker (2008) defined academic success using grade point average.

Findings related to the question "Do the DSS providers and administrators ensure that school facilities are accessible for you?" deviated from the previous two. Students who answered *no* were over nine times more likely to have academic success than students who answered *do not know*. This result coincides with the thought that uncertainty is unhelpful because students who were unsure were less likely to have academic success than students who answered affirmatively. Students who know that their school facilities are not accessible may experience less stress than students who do not know if their school facilities are accessible. For example, when students who identify as transgender/gender nonbinary are aware that facilities are not inclusive may avoid them and thus avoid uncertainty and additional stress (Weinhardt et al., 2017). The same might be true of students with disabilities.

Students who answered *yes*, that DSS providers and administrators ensure that school facilities are accessible for them, were six times more likely to have academic success than students who answered *do not know*. These results align with research that has found that safe access to facilities (e.g., restrooms, locker rooms) was a concern for individuals who identify as transgender/gender nonbinary (Bilodeau, 2007; Finger, 2010; Seelman et al., 2012; Seelman, 2014b) and individuals with disabilities (Hums et al., 2016; Riley et al., 2008; Rimmer et al., 2017; Yalon-Chamovitz, 2009). Future research should explore the reasons for why students answered in the ways they did. Specifically, additional research in a qualitative research design could result in more findings and clarification.

Research Question 5

Research Question 5: Which practices do participants in this study indicate they believe would contribute to their academic success?

Quantitative Responses. Mizock and colleagues (2013) wrote the "Brief Report on Transgender Students with Disabilities: Best Practices for Higher Education" in which ten best practices were suggested based upon previously published research. After searching several databases, no empirical research to date had elicited feedback on the best practices from college students who identify as transgender/gender nonbinary and have at least one disability. A descriptive analysis was conducted to determine which practices students believed would contribute to their academic success. A frequencies table was analyzed to determine the frequency and percent of students who endorsed each best practice.

The table revealed that the following three best practices were endorsed by less than half of all 89 participants: (1) indicating the offices' participation in trans affirmative trainings, (2) ensuring your inclusion in campus activities and groups, (3) protecting your confidentiality, (4)

offering to connect you with culturally sensitive counseling, (5) offering to connect you with career counseling and vocational supports. There are many reasons why the majority of participants may not have endorsed these best practices. The effects these best practices have on students may not be apparent to them. The students may not have found these practices to be especially helpful or unhelpful in the past. The higher education institutions where the students were enrolled might already have the best practices in place, and thus the students may not have noted them separately as needed.

The three best practices of (1) protecting your confidentiality; (2) offering to connect you with culturally sensitive counseling; and (3) offering to connect you with career counseling and vocational supports were endorsed by less than one out of every three participants. Protection of confidentiality may not have been frequently endorsed because it may be taken for granted by students. Institutions of higher education and DSS providers and administrators are held to strict confidentiality standards by the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and the Family Educational Rights and Privacy Act of 1974 (FERPA), as well as their professional codes of ethics (e.g., American Counseling Association, Commission on Rehabilitation Counselor Certification). Students may already have had access to culturally sensitive counseling, career counseling, or other vocational supports. Perhaps they were at a point in their lives and schooling when they did not require these services. Therefore, students may not have felt the need for culturally sensitive counseling, career counseling, or other vocational supports and may not have endorsed these practices.

Over half of participants endorsed the following five best practices: (1) creating a welcoming environment, (2) hiring staff who openly identify as transgender/gender nonbinary, (3) effectively advocating for your needs by monitoring your school's ongoing services and

policies, (4) using unbiased behaviors, and (5) ensuring that school facilities are accessible for you. The best practice that was endorsed by the most participants (69.7%) was hiring staff who openly identify as having a disability. These best practices may have been endorsed by a majority of students for several reasons. The students may have noted these best practices as needed because their colleges or universities might not have had the best practices in place. Alternatively, these best practices may have been in place at students' colleges or universities and found by students to be very helpful. Therefore, students endorsed these best practices because they were aware of the beneficial effects the best practices had on them.

An interesting finding from this research question was the unequal endorsement of the two best practices regarding hiring staff who openly identify as having a disability and hiring staff who openly identify as transgender/gender nonbinary. While the participants identified as both having a disability and as transgender/gender nonbinary, more participants endorsed hiring staff who openly identify as having a disability than hiring staff who openly identify as transgender/gender nonbinary. The difference in endorsements could indicate that the participants considered staff who identify as having a disability as more helpful than staff who identify as transgender/gender nonbinary. Perhaps the participants felt that staff with experiences of having a disability could support the students better and that staff with experiences of identifying as transgender/gender nonbinary would not contribute to improved support. Overall, intersectionality theory is reflected in the participants endorsing these two best practices at high rates.

Future research could use standardized definitions for each best practice. Additional areas to explore further are different student needs based upon their status as undergraduate, graduate, or professional students and at different years in their programs. Students with various gender

identities may endorse different sets of best practices. Also, students with different disabilities may find certain best practices to be more helpful than others. A future area of exploration could include the reasons for why students answered in the ways they did. Finally, a qualitative research design could result in more findings.

Qualitative Responses. Qualitative responses of additional best practices were given by four of the 89 participants. These practices directly reflected the past experiences students had with DSS providers and administrators and focused on responsiveness, advocacy, and accessibility. With regard to responsiveness, one participant indicated that they never received a response after they contacted the DSS providers and administrators at their public university or college. Another participant stated that when faculty did not honor their accommodations, they needed advocacy from DSS providers and administrators. In the current study, participants have a similar experience as students in Abreu and colleagues' (2016) study who reported that DSS staff did not support students when they experienced challenges from faculty regarding the use of accommodations.

Accessibility of services from DSS providers and administrators was noted by two participants. They gave suggestions regarding (1) making information easier to find and read, (2) technical assistance for registering with DSS and completing necessary paperwork, and (3) access to affordable diagnostic testing. Future research using qualitative methods would enhance these findings by exploring the nuances of students' needs.

Summary of Research Questions

Research Question 1 simply explored the percentage of students in this study who contacted disability support services at their public university or college. A vast majority of students contacted DSS providers and administrators at their institution of higher education.

Research Question 2 and Research Question 3 examined the differences in academic success for students (1) who contacted DSS providers and administrators and (2) who received accommodations from DSS providers and administrators respectively. The results were not statistically significant; thus, more information is needed.

Research Question 4 investigated which practices increase the probability of academic success for students in this study. Results demonstrated a significant association only between academic success and three practices: (1) DSS providers and administrators offering to connect students with career counseling or other vocational supports, (2) DSS providers and administrators ensuring participants' inclusion in campus activities and groups, and (3) DSS providers and administrators ensuring that school facilities are accessible for students. Students who chose *do not know* for the first practice (i.e., career counseling or other vocational supports) were almost six times more likely to have academic success than students who said *yes*. For the second practice (i.e., ensuring participants' inclusion), students who answered *do not know* were over four times more likely to have academic success than students who answered *no*. Students who responded *no* and *yes* to the third practice (i.e., accessible school facilities) were 9 and 6 times respectively more likely to have academic success than students who said *do not know*.

Research Question 5 looked at which practices students believed would contribute to their academic success. The best practice endorsed by the most participants was hiring staff who openly identify as having a disability. The qualitative responses noted a need for responsiveness, advocacy, and accessibility from DSS providers and administrators. While all of these findings are helpful in this area of research, the limitations of this study must be taken into consideration.

Study Limitations

All research has limitations, and limitations for social research include the following categories according to Shipman (2014): reliability, validity, and generalizability. An additional limitation for this study was current events.

Reliability

Reliability references the ability to reproduce results from a research study when it is repeated (Middleton, 2020). Shipman (2014) notes that examining the reliability of a study requires focusing on the methods used in the research study. This descriptive non-experimental study was conducted using a survey research design. A survey research design was ideal for this study's population and research questions. Heppner and colleagues (2016) indicate that survey research is ideal for accessing the experiences of specific student populations. The authors also note that creating comparisons, identifying patters, and exploring causes and effects can easily be done using survey research design.

Overall, this study would need to be reproduced to determine the reliability. While the study could easily be replicated, there are many aspects that would be difficult to replicate. First, the demographics of students were not gathered. Demographics would include race, age, specific gender identity, specific disability, country of origin, year of study, type of program, college or university attended, location, and many others. Without this information, having a sample that reflects the unknown demographics would be impossible (see Generalizability). Additionally, the coronavirus pandemic had an effect on this study. Studies after the pandemic has ended and there is more in-person instruction will likely have different results (see Current Events). One aspect of the current study that would be easy to replicate is the survey.

Instrumentation

There is the internal and external reliability of the instrument to be considered. The instrumentation for this study was a survey of questions based upon previous research regarding

the academic success of college students with disabilities (Dong and Lucas, 2016) and proposed best practices for supporting students of higher education who identify as transgender and have disabilities (Mizock et al., 2013). Internal reliability for the current survey does not appear to be appropriate because the questions do not all measure the same construct (McLeod, 2013). Testing external reliability for the study would have required using the same survey for the same set of participants at least twice, which is test-retest reliability. For the current study, time limitations and confidentiality requirements did not allow for a second test. Internal and external reliability would need additional studies to be determined.

Validity

While a study might be reliable, the results may not necessarily be valid (Middleton, 2020). Middleton (2020) and Shipman (2014) note that the validity of a study is supported by other evidence, such as established bodies of knowledge and other measures of the same theory. Comparing the body of knowledge about students in higher education who identify as transgender/gender nonbinary and have at least one disability would be very challenging. No previous research has explored the best practices from Mizock and colleagues (2013), previous studies used varying definitions of academic success, and previous studies have used widely different ways of identifying participants. Therefore, the external validity or generalizability of the findings from this study would need to be tested with future studies and a more robust body of knowledge regarding the current population.

Generalizability

The results of this study cannot be generalized due to the population being unknown, the sampling method used and non-response (Andrade, 2020; Shipman, 2014). This three areas are discussed in more detail next.

Population

The specific population being explored included college students who identify as transgender/gender nonbinary, have at least one disability, and recently attended a public university or college in the USA. This population is a marginalized community with a history of being further marginalized by unethical research practices (Adams et al., 2017; Vincent, 2018). To protect the confidentiality of participants, demographic information was not collected. Therefore, the population—regarding specific demographics—for this study cannot be determined. Additional demographic variables (e.g., sexuality, age, race) would expand upon the intersectionality of participants and thus their experiences (Levine & Breshears, 2019). These additional variables would change how the results were interpreted (see Implications).

Sampling

Because this study was conducted via an internet survey, participants were selected using two nonprobability sampling strategies: convenience sampling and purposive sampling (Barratt et al., 2015; Miner et al., 2012). Convenience sampling is used when participants are willing to take part in the research (Taherdoost, 2016). This could mean that respondents were biased in that they are interested in the research and selected themselves into the sample (Andrade, 2020). Purposive sampling is used for research on hard-to-reach populations, such as the participants in this study. Because the survey was online, respondents had to be literate and have access to the internet (Andrade, 2020). The major disadvantage of the sampling methods used is that the sample may not reflect the actual population.

Non-response

Non-response—the difference between people who were sent the survey and respondents included in the research study—occurred in the current study (Berg, 2010). There are approximately 26,600 transgender and gender nonbinary students with disabilities in public

higher education institutions in the USA based upon previous findings (Flores et al., 2016; James et al., 2016; Snyder et al., 2019a). After data cleaning was complete, responses from only about 0.23% of the population (n = 89) were used in the statistical analysis. Thus, the results are limited to this specific sample and are not generalizable to the population of college students who identify as transgender/gender nonbinary, have at least one disability, and recently attended a public university or college in the USA.

Current Events

Multiple historical events occurred during the time the survey was active, which potentially contributed to the non-response that occurred in this study. One year prior to the survey being released on January 5, 2020, the World Health Organization (WHO) released its first Disease Outbreak News report about the novel coronavirus, COVID-19. Institutions of higher education began shifting to virtual instruction in March of 2020 after the WHO (2020) characterized COVID-19 as a pandemic. By the spring 2021 semester, the institutions' leaders were consistently changing their plans for in-person and virtual instruction, which left students, faculty, and staff uncertain and busy trying to prepare or change plans (Diep, 2021).

On January 6, 2021, the day before the survey went live, there was an assault on the USA's Capitol (Reeves et al., 2021). Fourteen days later Joe Biden was inaugurated as president of the USA, and he immediately carried out executive orders regarding the transgender/gender nonbinary community and disability community (Biden, 2021). Around the same time a provision of HB142 expired, allowing local governments and municipalities in North Carolina to put protective ordinances in place for the transgender/gender nonbinary community (Johnson & Beach-Ferrara, 2020). The news was filled with information about the assault, the inauguration and resulting executive orders, and the adoption of local protective ordinances during the first

days and weeks that the survey was live. Also, local and regional organizations for the transgender/gender nonbinary and the disability communities declined to share the survey information due to the consistent breaking news. Due to the timing of the events and the survey release date, the survey may not have been shared as frequently or widely, the survey information may not have been seen as much, and students may not have been as willing to take or complete the survey.

Implications

Despite the limitations of this research study, there are many implications that could be applied with regard to counseling, supervision, leadership and advocacy, teaching, and research and scholarship.

Counseling

Students in this study experienced both academic success and unsuccess. Notably, almost 40% of participants indicated they had experienced one or more of the following: academic probation, academic dismissal, withdrawal from classes, and dropping out of classes. Almost half of the students who had graduated noted withdrawal from classes and dropping out of classes. DSS providers can monitor and offer support for students who have these experiences because those students are able to graduate despite the academic concerns.

The students contacted DSS providers and received accommodations at high percentages. However, the percentage of not receiving accommodations in this study is much higher than for the students with disabilities from the NLTS2 (Newman & Madaus, 2015). DSS providers should be prepared for contact from students who identify as transgender/gender nonbinary and have at least one disability. They can also monitor which students are not receiving accommodations and reasons why students did not receive accommodations.

Through qualitative answers students provided insight into specific supports they need from DSS providers and administrators. DSS providers and administrators should make information easier to find and read, as well as offer technical assistance for registering with DSS and completing necessary paperwork. Also, DSS providers and administrators should have resources available for students who need affordable diagnostic testing.

Supervision

DSS supervisors should be aware that students may assume that DSS providers will offer to connect students with culturally sensitive counseling, career counseling, and other vocational supports. Students may also take for granted that their confidentiality is being protected by DSS providers. While these practices might be expected as a part of the job, supervisors can ensure that DSS providers stay vigilant in following HIPAA and FERPA and connecting students with the resources they need. Over half of the students desired a welcoming environment and unbiased behaviors. Supervisors can work with DSS providers to gather feedback from students on the environment and DSS providers' biased behaviors. Also, ongoing assessments of taped sessions can be used to evaluate DSS providers' ability to display welcoming and unbiased behaviors. With this knowledge supervisors can provide any needed remediation to the DSS providers.

Results were not definitive as to why students who answered *do not know* about being offered to connect with career counseling or other vocational supports were almost six times more likely to have academic success than students who answered *yes*. Supervisors can explore with DSS providers how the differences in students' comfort levels could affect their academic success based upon their access to career counseling or other vocational supports.

Leadership and Advocacy

Students who noted that the DSS providers and administrators at their institutions ensured that school facilities were accessible for students were six times more likely to have academic success than students who indicated they did not know. Safe access to facilities is a concern for students who identify as transgender/gender nonbinary and have at least one disability (Bilodeau, 2007; Finger, 2010; Hums et al., 2016; Riley et al., 2008; Rimmer et al., 2017; Seelman et al., 2012; Seelman, 2014b; Yalon-Chamovitz, 2009), and as such DSS administrators should advocate for this concern of students. Also, student participation in student activities and groups is important for academic success (Baker, 2008; Lotkowski et al., 2014). Students who did not know if DSS providers and administrators ensured their inclusion in campus activities and groups were four times more likely to have academic success than students who indicated that DSS providers and administrators do not. This finding suggests that advocating for students' inclusion in the activities and groups would lead to more student participation and in turn contribute to the students' academic success (Baker, 2008; Lotkowski et al., 2014).

DSS providers and administrators should also (1) advocate for students needs by monitoring their school's ongoing services and policies and (2) advocate for students when faculty do not honor students' accommodations. Regarding leadership DSS administrators have the ability to hire staff who openly identify as transgender/gender nonbinary and staff who openly identify as having a disability. These practices were noted by most students to be helpful. One student indicated that DSS providers and administrators never responded to their initial communication. DSS administrators have the responsibility to address these errors.

Teaching

Hopefully, many of these errors can be corrected before DSS providers and administrators take their positions. Counselor educators have a responsibility not solely to teach

students about the best practices outlined in this research study. They also must model how to carry out the best practices. The importance of confidentiality and referrals can be stressed in coursework. Advocacy work can be promoted through assignments outside of the classroom. Skill building can be practiced during class activities with a focus on welcoming and unbiased behaviors. And research endeavors can be encouraged by assigning topics related to students who identify as transgender/gender nonbinary and have at least one disability.

Research and Scholarship

Recommendations for future research were made throughout this chapter, and themes revolved around dissimilarities. This study only included public community colleges and universities, whereas future research could include private institutions and postsecondary career and technical education schools. A comparison of the different types of institutions would also contribute to the robustness of the literature.

There is no research to compare to the current study as no previous research has explored the best practices from Mizock and colleagues (2013), and previous studies used varying definitions of academic success. Standardized definitions for academic success and each best practice would contribute to the ability of researchers to compare research results between studies. The current research was also unable to be compared to past research due to the age gap between the literature. DSS providers and administrators at institutions of higher education currently may be better at reaching students with disabilities. For a variety of reasons, students involved in current research as compared to past research might be: (1) more open to disclosing their disabilities, (2) more likely to need accommodations, and (3) more likely to want accommodations. Exploring each of these areas and reasons for differences would add to the robustness of the literature.

Students represent a diverse group of individuals. A few dissimilarities between students that should be studied include yet are not limited to: (1) undergraduate, graduate, and professional levels; (2) gender identities; (3) disabilities; and (4) races. These dissimilarities may reflect in different needs, different rates of contacting DSS providers and administrators, and different experiences of academic success. Research could also include the type of contact (e.g., email, phone call) students made to DSS providers and administrators, if students had asked for accommodations or not, and reasons for those actions. Another area of exploration could include the reasons for why students answered in the ways they did. Additional research in a qualitative research design could result more findings.

Conclusion

Approximately 26,600 students of public higher education (i.e., colleges, universities) in the United States of America (USA) identify as transgender/gender nonbinary and have at least one disability. This is based upon published findings from (1) the National Center for Education Statistics (Snyder et al., 2019a); (2) the Williams Institute (Flores et al., 2016); and (3) the 2015 U.S. Transgender Survey (James et al., 2016). These students are provided accommodations by their institutions of higher education, as required by the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973 (ADA National Network, 2017). Based upon prior research, a lack of contact with disability support services (Abreu et al., 2016; Fleming et al., 2017) and not requesting accommodations (Dong & Lucas, 2016) may hinder students' academic success.

The results of this study showed that higher percentages of students who identify as transgender and have at least one disability may be contacting DSS providers and administrators than percentages of students with disabilities generally. The 2018 Center for Collegiate Mental

Health (2019) reflects these findings. These differences could be explained using intersectionality theory. Students with disabilities generally may not be as willing to disclose their disability status, whereas students with disabilities who identify as transgender/gender nonbinary may be more willing to disclose their disability status. Individuals who are transgender/gender nonbinary are often required to disclose their gender identity to receive gender affirming services (Puckett et al., 2018) and thus may be more likely to disclose their disability status to receive disability services. However, lower percentages of students who contacted DSS providers and administrators (1) received accommodations and (2) had academic success than percentages of students with disabilities generally. Using intersectionality theory this difference could be contributed to additional barriers created by systems of power due to the additional marginalized identity (e.g., transgender/gender nonbinary) experienced by the participants in the current study (Cory, 2011).

Intersectionality theory also supports the finding that participants want DSS providers and administrators to ensure school facilities (e.g., restrooms, locker rooms) are accessible. Prior research has found that safe access to facilities was a concern for both transgender/gender nonbinary individuals (Bilodeau, 2007; Finger, 2010; Seelman et al., 2012; Seelman, 2014b) and individuals with disabilities (Hums et al., 2016; Riley et al., 2008; Rimmer et al., 2017; Yalon-Chamovitz, 2009). Students who are at the intersection of these marginalized identities are affected by the decisions made by systems of power (e.g., DSS, higher education institutions) regarding the accessibility of facilities. The current research suggests that ensuring accessible school facilities for students who identify as transgender/gender nonbinary and have at least one disability is crucial to their academic success.

Other best practices for DSS providers and administrators to focus on include: (1) creating a welcoming environment, (2) using unbiased behaviors, (3) hiring staff who openly identify as transgender/gender nonbinary, (4) effectively advocating for students' needs by monitoring the school's ongoing services and policies, and (5) hiring staff who openly identify as having a disability. Additional qualitative suggestions from students suggest that responsiveness, advocacy, and accessibility from DSS providers and administrators are pertinent. These suggestions reflect intersectionailty theory and the position of DSS as a system of power for students. Future research is needed to determine how the implimentation of these best practices affects students' academic success. Specifically, different groups of students, demographics, gender identities, and disabilities can be studied to expand the effect of additonal marginalized identities with intersectionality theory. Finally, more qualitative information is needed to address the gap in knowledge identified in this study.

References

Abreu, M., Hillier, A., Frye, A., & Goldstein, J. (2016). Student experiences utilizing disability support services in a university setting. *College Student Journal, 50*(3), 323-328.

ADA National Network. (2017). *Postsecondary institutions and students with disabilities*. https://adata.org/sites/adata.org/files/files/Postsecondary_Students_with_Disabilities_final2017.pdf

Adams, N., Pearce, R., Veale, J., Radix, A., Castro, D., Sarkar, A., & Thom, K. C. (2017). Guidance and ethical considerations for undertaking transgender health research and Institutional Review Boards adjudicating this research. *Transgender Health, 2*(1), 165-175.

Acharya, A. S., Prakash, A., Saxena, P., & Nigam, A. (2013). Sampling: why and how of it? *Indian Journal of Medical Specialties, 4*(2), 330-333. http://dx.doi.org/10.7713/ijms.2013.0032

American Counseling Association. (2010). Competencies for counseling with transgender clients. *Journal of LGBT Issues in Counseling, 4*(3), 135-139. http://dx.doi.org/10.1080/15538605.2010.524839

American Counseling Association. (2014). *2014 ACA code of ethics*. https://www.counseling.org/docs/default-source/default-document-library/2014-code-of-ethics-finaladdress.pdf

Americans with Disabilities Act. (2020). *Introduction to the ADA*. https://www.ada.gov/ada_intro.htm

Anderson, E., & Schreiner, L. A. (2000). Advising for sophomore success. In L. A. Schreiner & J. Pattengale (Eds.), *Visible Solutions for Invisible Students: Helping Sophomores Succeed* (Monograph 31, pp. 55-77). National Resource Center for the First-Year Experience and Students in Transition.

Andrade, C. (2020). The limitations of online surveys. *Indian Journal of Psychological Medicine, 42*(6), 575-576. doi: 10.1177/0253717620957496

Ansara, Y. G., & Hegarty, P. (2014). Methodologies of misgendering: Recommendations for reducing cisgenderism in psychological research. *Feminism and Psychology, 24*(2), 259-270. doi: 10.1177/0959353514526217

Association of Lesbian, Gay, Bisexual, and Transgender Issues in Counseling. (2009). *Competencies for counseling with transgender clients*. Alexandria, VA: Author.

Baker, C. N. (2008). Under-represented college students and extracurricular involvement: The effects of various student organizations on academic performance. *Social Psychology of Education, 11*, 273-298. doi: 10.1007/s11218-007-9050-y

Baker, K. E. (2017). The future of transgender coverage. *The New England Journal of Medicine, 376*(19), 1801-1804.

Barratt, M. J., Ferris, J. A., & Lenton, S. (2015). Hidden populations, online purposive sampling, and external validity: Taking off the blindfold. *Field Methods, 27*(1), 3-21. doi: 10.1177/1525822X14526838

Battle, S., & Wheeler, T.E. (2017). Dear Colleague Letter on Transgender Students. Washington, D.C.: Department of Justice and Department of Education.

Beemyn, G. (2017). *How colleges can still legally protect trans students without coverage under Title IX*. Campus Pride. https://www.campuspride.org/howcollegescanstillprotecttransstudents/

Benjamin, D. J., Berger, J. O., Johannesson, M., Nosek, B. A., Wagenmakers, E.- J., Berk, R., Bollen, K. A., Brembs, B., Brown, L., Camerer, C., Cesarini, D., Chambers, C. D., Clyde, M., Cook, T. D., De Boeck, P., Dienes, Z., Dreber, A., Easwaran, K., Efferson, … Johnson, V. E. (2018). Redefine statistical significance. *Nature Human Behaviour, 2*, 6-10. doi: 10.1038/s41562-017-0189-z file

Berg, N. *Non-response bias*. Munich Personal RePEc Archive. MPRA Paper No. 26373

Biden, J. R. (2021). Executive Order On Advancing Racial Equity and Support for Underserved Communities Through the Federal Government. Washington, D.C.: The White House.

Bilodeau, B. L. (2007). *Genderism: Transgender students, binary systems and higher education* (Doctoral dissertation). doi:10.25335/M56Q1SX24

Bornstein, M. H., Jager, J., & Putnick, D. L. (2013). Sampling in developmental science: Situations, shortcomings, solutions, and standards. *Developmental Review, 33*(4), 357-370. doi: 10.1016/j.dr.2013.08.003

Carroll, L., & Mizock, L. (2017). Trans-affirmative care: Moving from trans allies to trans activists. *Psychiatric Clinics of North America, 40*(1), xi-xiii.

Center for Collegiate Mental Health. (2019). *2018 Annual Report*. https://ccmh.psu.edu/assets/docs/2018-Annual-Report-9.27.19-FINAL.pdf

Cole, E. R. (2009). Intersectionality and research in psychology. *American Psychologist, 64*(3), 170-180. doi: 10.1037/a0014564

Cory, R. C. (2011). Disability services offices for students with disabilities: A campus resource. *Learning Disabilities Research and Practice, 154*, 27-36.

Crenshaw, K. (1989). Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *University of Chicago Legal Forum, 1989*(1), 139-167. http://chicagounbound.uchicago.edu/uclf/vol1989/iss1/8

Dammeyer, J., & Chapman, M. (2018). A national survey on violence and discrimination among people with disabilities. *BMC Public Health, 18*(355), 1-9. https://doi.org/10.1186/s12889-018-5277-0

Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. *Journal of Educational Technology Systems, 49*(1), 5-22. doi: 10.1177/0047239520934018

Diep, F. (2021). *As the pandemic worsens, colleges prepare to test their spring plans.* The Chronicle of Higher Education. https://www.chronicle.com/article/as-the-pandemic-worsens-colleges-prepare-to-test-their-spring-plans?cid=gen_sign_in

Dong, S., & Lucas, M. S. (2016). An analysis of disability, academic performance, and seeking support in one university setting. *Career Development and Transition for Exceptional Individuals, 39*(1), 47-56. doi: 10.1177/2165143413475658

Etikan, I., Musa, S., & Alkassim, R. (2015). *Comparison of convenience sampling and purposive sampling. American Journal of Theoretical and Applied Statistics, 5*(1), 1-4. doi: 10.11648/j.ajtas.20160501.11

Finger, E. F. (2010). *Beyond the binary: Serving the transgender student, improving the college experience* (Doctoral dissertation). Retrieved from: http://hdl.handle.net/2376/2789

Fleming, A. R., Oertle, K. M., & Plotner, A. J. (2017). Student voices: Recommendations for improving postsecondary experiences of students with disabilities. *Journal of Postsecondary Education and Disability, 30*(4), 311-328.

Flores, A. R., Herman, J. L., Gates, G. J., & Brown, T. N. T. (2016). *How many adults identify as transgender in the United States?* Los Angeles, CA: The Williams Institute.

Garson, G. D. (2016). *Logistic regression: Binomial and multinomial* (2016 ed.) Statistical Associates Publishers.

Goldberg, A. E. (2018a, August). *Transgender students in higher education*. The Williams Institute, UCLA School of Law. https://vtechworks.lib.vt.edu/bitstream/handle/10919/86955/TransHigherEd.pdf?sequence=1&isAllowed=y

Goldberg, A. E., Beemyn, G., & Smith, J. Z. (2018b). What is needed, what is valued: Trans' students' perspectives on trans-inclusive policies and practices in higher education.

Journal of Educational and Psychological Consultation, 29(1), 27-67. doi: 10.1080/10474412.2018.1480376

Goldberg, A. E., Kuvalanka, K. A., Budge, S. L., Benz, M. B., & Smith, J. Z. (2019). Health care experiences of transgender binary and nonbinary university students. *The Counseling Psychologist, 47*(1), 59-97. https://doi.org/10.1177/0011000019827568

Goldberg, A. E., Kuvalanka, K. A., & dickey, l. (2018c). Transgender graduate students' experiences in higher education: A mixed-methods exploratory study. *Journal of Diversity in Higher Education, 12*(1), 38-51. https://psycnet.apa.org/doi/10.1037/dhe0000074

Gopaldas, A. (2013). Intersectionality 101. *Journal of Public Policy & Marketing, 32*, 90-94.

Helms, R. M., Brajkovic, L., Godwin, K. A., & Evers, N. (2019). U.S. Higher Education: A Brief Guide. Washington, D.C.: American Council on Education.

Henderson, D. A., & Denison, D. R. (1989). Stepwise regression in social and psychological research. *Psychological Reports, 64*, 251-257.

Herbert, J. T., Hong, B. S. S., Byun, S., Welsh, W., Kurz, C. A., & Atkinson, H. A. (2014). Persistence and graduation of college students seeking disability support services. *Journal of Rehabilitation, 80*(1), 22-32.

Heppner, P. P., Wampold, B. E., Owen, J., Thompson, M. N., & Wang, K. T. (2016). *Research Design in Counseling* (4th ed.). Cengage Learning.

Hums, M. A., Schmidt, S. H., Novak, A., & Wolff, E. A. (2016). Universal design: Moving the Americans with Disabilities Act from access to inclusion. *Journal of Legal Aspects of Sport, 26*, 36-51. doi: 10.1123/jlas.2015-0011

Jager, J., Putnick, D. L., & Bornstein, M. H. (2017). More than just convenient: The scientific merits of homogeneous convenience samples. *Monographs of the Society for Research in Child Development, 82*(2), 13-30. doi: 10.1111/mono.12296

James, S. E., Herman, J. L., Rankin, S., Keisling, M., Mottet, L., & Anafi, M. (2016). *The Report of the 2015 U.S. Transgender Survey*. Washington, D.C.: National Center for Transgender Equality.

Johnson, K. R., & Beach-Ferrara, J. (2020). *A new day for LGBTQ North Carolinians: As HB142 expires, we can now build a better NC.* The Citizen Times. https://www.citizen-times.com/story/opinion/2020/12/04/lgbtq-north-carolina-laws-hb-2-hb-142-bathroom-bill/3814455001/

Kelly, L. (2020). *The Flesch Reading Ease and Flesch-Kincaid Grade Level*. Retrieved January 23, 2021, from https://readable.com/blog/the-flesch-reading-ease-and-flesch-kincaid-grade-level/

Kornilova, T. V., Chumakova, M. A., & Izmailova, A. G. (2015, July 25-26). *Implicit theories of intelligence and personality, attitudes towards uncertainty, and academic achievement in college students: A cross-cultural study* [Paper presentation]. The 3rd International Academic Conference on Social Sciences, Istanbul, Turkey.

Krum, T., Davis, K., & Galupo, M. P. (2013). Gender-inclusive housing preferences: A survey of college-aged transgender students. *Journal of LGBT Youth, 10*(1-2), 64-82.

Lakens, D., Adolfi, F., Albers, C., Anvari, F., Apps, M., Argamon, S., Baguley, T., Becker, R., Benning, S., Bradford, D., Buchanan, E., Caldwell, A., Van, C. B., Carlsson, R., Chen, S., Chung, B., Colling, L., Collins, G., Crook, Z., … Zwaan, R. (2018), Justify your alpha, *Nature Human Behaviour, 2*(3), 168-171. https://doi.org/10.1038/s41562-018-0311-x

Levine, A., & Breshears, B. (2019). Discrimination at every turn: an intersectional ecological lens for rehabilitation. *Rehabilitation Psychology, 64*(2), 146-153. doi: 10.1037/rep0000266

Lhamon, C. E., & Gupta, V. (2016). *Dear Colleague Letter on Transgender Students*. Washington, D.C.: Department of Justice and Department of Education.

Long, R. G. (2008). The crux of the method: Assumptions in ordinary least squares and logistic regression. *Psychological Reports, 103*, 431-434. doi: 10.2466/PR0.103.2.431-434

Lotkowski, V. A., Robbins, S. B., & Noeth, R. J., (2004). *The role of academic and non-academic factors in improving college retention: ACT policy report*. ACT Research. https://files.eric.ed.gov/fulltext/ED485476.pdf

Madaus, J. W. (2011). The history of disability services in higher education. *New Directions for Higher Education, 2011*(154), 5-15.

McKinney, J. S. (2005). On the margins: A study of the experiences of transgender college students. *Journal of Gay and Lesbian Issues in Education, 3*(1), 63-75.

McLeod, S. (2013). *What is reliability?* SimplyPsychology. https://www.scribbr.com/methodology/reliability-vs-validity/

Merriam-Webster. (n.d.). *Best practice*. In Merriam-Webster.com dictionary. Retrieved January 14, 2021, from https://www.merriam-webster.com/dictionary/best%20practice

Middleton, F. (2020). *Reliability vs validity: What's the difference?* Scribbr. https://www.scribbr.com/methodology/reliability-vs-validity/

Miner, M. H., Bockting, W. O., Romine, R. S., & Raman, S. (2012). Conducting internet research with the transgender population: Reaching broad samples and collecting valid data. *Social Science Computer Review, 30*(2), 202-211. doi: 10.1177/0894439311404795

Mizock, L., Covello, C., & Ferreira, C. (2013). Brief report on transgender students with disabilities: Best practices for higher education. *Pedagogy and the Human Sciences, 3*(1), 25-33. Retrieved from https://scholarworks.merrimack.edu/phs/vol3/iss1/2

Moradi, B., & Grzanka, P. R. (2017). Using intersectionality responsibility: Toward critical epistemology, structural analysis, and social justice activism. *Journal of Counseling Psychology, 64*(5), 500-513. http://dx.doi.org/10.1037/cou0000203

Newman, L. A., & Madaus, J. W. (2015). Reported accommodations and supports provided to secondary and postsecondary students with disabilities: National perspective. *Career Development and Transition for Exceptional Individuals, 35*(3), 173-181. doi: 10.1177/2165143413518235

O'Connell, A. A., & Amico, K. R. (2018). Logistic regression and extensions. In G. R. Hancock, L. M. Stapleton, & R. O. Mueller (Eds.), *The Reviewer's Guide to Quantitative Methods in the Social Sciences* (2nd ed., pp. 214-234). Routledge.

Pryor, J. T. (2015). Out in the classroom: Transgender student experiences at a large public university. *Journal of College Student Development, 56*(5), 440-455.

Puckett, J. A., Cleary, P., Rossman, K., Mustanski, B., & Newcomb, M. E. (2018). Barriers to gender-affirming care for transgender and gender nonconforming individuals. *Sexuality Research and Social Policy, 15*, 48-59. doi: 10.1007/s13178-017-0295-8

Reeves, J., Mascaro, L., & Woodward, C. (2021). *Capitol assault a more sinister attack than first appeared.* The Associated Press. https://apnews.com/article/14c73ee280c256ab4ec193ac0f49ad54

Riley, B. B., Rimmer, J. H., Wang, E., & Schiller, W. J. (2008). A conceptual framework for improving the accessibility of fitness and recreation facilities for people with disabilities. *Journal of Physical Activity and Health, 5*, 158-168.

Rimmer, J. H., Padalabalanarayanan, S., Malone, L. A., & Mehta, T. (2017). Fitness facilities still lack accessibility for people with disabilities. *Disability and Health Journal, 10*(2), 214-221. doi: 10.1016/j.dhjo.2016.12.011

Seelman, K. L., Walls, N. E., Costello, K., Steffens, K., Inselman, K., Montague-Asp, H., & Colorado Trans on Campus Coalition. (2012). *Invisibilities, uncertainties and unexpected surprises: The experiences of transgender and gender nonconforming students, staff, and faculty at colleges and universities in Colorado*. Retrieved from https://portfolio.du.edu/ewalls2

Seelman, K. L. (2014a). Recommendations of transgender students, staff, and faculty in the USA for improving college campuses. *Gender and Education, 26*(6), 618-635. https://doi.org/10.1080/09540253.2014.935300

Seelman, K. L. (2014b) Transgender Individuals' Access to College Housing and Bathrooms: Findings from the National Transgender Discrimination Survey. *Journal of Gay and Lesbian Social Services, 26*(2), 186-206. doi: 10.1080/10538720.2014.891091

Shipman, M. D. (2014). *The limitations of social research* (4th ed.) Routledge.

Silverman, L., Graff, C., Elmore, S., Smith, J., & Salmeh, A. (2017, October 19-21). *Legal Framework for Supporting Transgender Students* [Seminar]. 2017 School Law Practice Seminar, Chicago, IL. https://cdn-files.nsba.org/s3fs-public/Transgender_Law_and_Litigation_Update_Silverman_Smith_0.pdf

Singh, A. A., Meng, S., & Hansen, A. (2013). "It's already hard enough being a student": Developing affirming college environments for trans youth. *Journal of LGBT Youth, 10*, 208-223.

Snyder, T. D., de Brey, C., & Dillow, S. A. (2019a). *Digest of Educational Statistics, 2018*. Washington, DC: National Center for Education Statistics.

Snyder, T. D., de Brey, C., & Dillow, S. A. (2019b). *Digest of Educational Statistics, 2017*. Washington, DC: National Center for Education Statistics.

Taherdoost, H. (2016). Sampling methods in research methodology: How to choose a sampling technique for research. *International Journal of Academic Research in Management, 5*(2), 18-27.

van Smeden, M., de Groot, J. A. H., Moons, K. G. M., Collins, G. S., Altman, D. G., Eijkemans, M. J. C., & Reitsma, J. B. (2016). No rationale for 1 variable per 10 events criterion for binary logistic regression analysis. *BMC Medical Research Methodology, 16*(163), 1-12. doi: 10.1186/s12874-016-0267-3

van Smeden, M., Moons, K. G. M., de Groot, J. A. H., Collins, G. S., Altman, D. G., Eijkemans, M. J. C., & Reitsma, J. B. (2019). Sample size for binary logistic prediction models: Beyond events per variable criteria. *Statistical Methods in Medical Research, 28*(8), 2455-2474. doi: 10.1177/0962280218784726

Vincent, B. W. (2018). Studying trans: recommendations for ethical recruitment and collaboration with transgender participants in academic research. *Psychology and Sexuality, 9*(2), 1-15. doi: 10.1080/19419899.2018.1434558

Vittinghoff, E., & McCulloch, C. E. (2006). Relaxing the rule of ten events per variable in logistic and cox regression. *American Journal of Epidemiology, 165*(6), 710-718. doi: 10.1093/aje/kwk052

Warner, L. R. (2008). A best practices guide to intersectional approaches in psychological research. *Sex Roles, 59*, 454-463. https://doi.org/10.1007/s11199-008-9504-5

Weinhardt, L. S., Stevens, P., Xie, H., Wesp, L. M., John, S. A., Apchemengich, I., Kioko, D., Chavez-Korell, S., Cochran, K. M., Watjen, J. M., & Lambrou, N. H. (2017). Transgender and gender nonconforming youths' public facilities use and psychological well-being: A mixed-method study. *Transgender Health, 2*(1), 140-150. doi: 10.1089/trgh.2017.0020

Wilson, E., Campain, R., Moore, M., Hagiliassis, N., McGillivray, J., Gottliebson, D., Bink, M., Caldwell, M., Cummins, B., & Graffam, J. (2013). An accessible survey method: Increasing the participation of people with a disability in large sample social research. *Telecommunications Journal of Australia, 63*(2), 24.1-24.13. http://dx.doi.org/10.7790/tja.v63i2.411

Woodford, M. R., Joslin, J., Pitcher, E. N., & Renn, K. A. (2017). A mixed methods inquiry into trans* environmental microaggressions on college campuses: Experiences and outcomes. *Journal of Ethnic and Cultural Diversity in Social Work, 26*, 95-111.

World Health Organization. (2020). *Listings of WHO's response to COVID-19*. https://www.who.int/news/item/29-06-2020-covidtimeline

Yalon-Chamovitz, S. (2009). Invisible access needs of people with intellectual disabilities: A conceptual model of practice. *Journal of Intellectual and Developmental Disability, 47*(5), 395-400. doi: 10.1352/1934-9556-47.5.395

Zhang, Z. (2016). Variable selection with stepwise and best subset approaches. *Annals of Translational Medicine, 4*(7), 1-6. doi: 10.21037/atm.2016.03.35

Appendix A: UMCIRB APPROVAL FORM

EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board
4N-64 Brody Medical Sciences Building· Mail Stop 682
600 Moye Boulevard · Greenville, NC 27834
Office **252-744-2914** · Fax **252-744-2284** ·
rede.ecu.edu/umcirb/

Notification of Exempt Certification

From: Social/Behavioral IRB
To: Dana Cea
CC: Stephen Leierer
Date: 9/28/2020
Re: UMCIRB 20-001996
Transgender/Gender Nonbinary Students with Disabilities in the UNC System: Best Practices

I am pleased to inform you that your research submission has been certified as exempt on 9/28/2020. This study is eligible for Exempt Certification under category # 2a.

It is your responsibility to ensure that this research is conducted in the manner reported in your application and/or protocol, as well as being consistent with the ethical principles of the Belmont Report and your profession.

This research study does not require any additional interaction with the UMCIRB unless there are proposed changes to this study. Any change, prior to implementing that change, must be submitted to the UMCIRB for review and approval. The UMCIRB will determine if the change impacts the eligibility of the research for exempt status. If more substantive review is required, you will be notified within five business days.

Document	Description
DRAFT Cea Ch 1-3 5_28_20.pdf(0.01)	Study Protocol or Grant Application
Email and Social Media Scripts.pdf(0.01)	Recruitment Documents/Scripts
Questionnaire(0.02)	Surveys and Questionnaires
Survey Consent.pdf(0.01)	Consent Forms

For research studies where a waiver or alteration of HIPAA Authorization has been approved, the IRB states that each of the waiver criteria in 45 CFR 164.512(i)(1)(i)(A) and (2)(i) through (v) have been met. Additionally, the elements of PHI to be collected as described in items 1 and 2 of the Application for Waiver of Authorization have been determined to be the minimal necessary for the specified research.

The Chairperson (or designee) does not have a potential for conflict of interest on this study.

Appendix B: EMAIL AND SOCIAL MEDIA SCRIPTS

Email Script

Subject Line: Disability Supports for Transgender/Gender Nonbinary Students

Hi [name],

I am emailing you because you were listed as the contact person for the [LGBTQ office, Alumni organization, DSS] at [University]. For my dissertation, I am conducting a research study focused on the experiences of transgender/gender nonbinary current students or recent alumni who have disabilities. My hope is that you could help me by sharing the research study with any student, alumni, faculty, and staff email lists, as well as social media pages, you have.

The results from this study will be provided to disability support services offices in higher education. We hope the survey results will be used to increase student success. The following is the link to my REDCap survey, which includes additional information about the study.

Link: https://redcap.ecu.edu/surveys/?s=EM8XY8XNEF

Please contact Dana M. Cea at 919-960-1462 (text/call) or cead18@students.ecu.edu or Stephen J. Leierer at 252-744-6298 or leierers@ecu.edu for any research or accessibility related questions.

Thank you!

SIGNATURE

Social Media Script

Dana M. Cea (she/they) is conducting a research study for her dissertation focused on the experiences of trans* students who have disabilities. This includes students of public universities or colleges in North Carolina. Please take part or share! Link: https://bit.ly/3s7T9Xu

#transgender #gendernonbinary #northcarolina #disability #researchstudy #dissertation

Appendix C: INFORMED CONSENT

Title: Transgender/Gender Nonbinary Students with Disabilities: Best Practices

Principal Investigator: Dana M. Cea (she/they), MS, CPSS (NC), CRC, LCMHCA (NC), NCC

Faculty Supervisor: Stephen J. Leierer (he/him), Ph.D.

Purpose

You are being invited to participate in a **research** study conducted by Dana M. Cea (she/they), a PhD candidate at East Carolina University in the Department of Addictions and Rehabilitation Studies. There are two purposes for this study. The first is to explore which best practices used by disability support services lead to student success. The second is to elicit feedback on best practices from college students who identify as transgender/gender nonbinary and have at least one disability.

The results from this study will be provided to disability support services (DSS) offices in higher education. We hope the survey results will be used to increase student success.

Participants

You are invited to participate in this study if you:

- are 18 years or older;
- enrolled in at least one course at a public university or college (including community colleges) in the United States of America the last 12 months;
- identify as transgender and/or gender nonbinary (including not limited to gender fluid, gender queer, agender); and
- have at least one disability.

The goal is to survey at least 140 individuals.

Survey Information

If you decide to participate, the survey has about 20 questions and will take approximately 15-30 minutes to complete. The survey will be completed online through Research Electronic Data Capture, or REDCap. The survey includes questions about your eligibly for the study; your academic standing; and your experiences with your university's disability supports services office. **Taking this survey in a private, distraction-free place is recommended. Please make sure to exit the browser when you finish the survey.**

Confidentiality

Your responses will be kept confidential. No identifying information is asked to ensure anonymity and confidentiality. REDCap will be used for the data collection and storage through an online survey. REDCap is compliant with both the Health Insurance Portability and Accountability Act (HIPPA) and the Family Educational Rights and Privacy Act (FERPA). Data will be exported to IBM SPSS® Statistics with the data stored online under encryption instead of in the SPSS cloud.

Accessibility

REDCap has a text-to-speech function that will be enabled for this study. This survey also includes fonts in larger sizes with high contrast and response options formatted vertically with radio buttons. Two questions will have response options as checkboxes, and one question will have response options as a dropdown. **If you experience accessibility concerns, please contact Dana M. Cea or Stephen J. Leierer.**

Potential Risks

We do not anticipate any risks for taking part in this survey. If you feel uncomfortable when answering questions, **you can exit the survey at any time.**

Voluntary Participation and Withdrawal

Your participation in the research is **voluntary**. You may choose not to answer any or all questions, and you may stop at any time. There is **no penalty for not taking part** in this research study.

Potential Benefits

The results from this study will be provided to disability support services (DSS) offices in higher education. We hope the survey results will be used to increase student success. Participation in this study may not benefit you. We will not be able to pay you for the time you volunteer while being in this study.

The results of this study will be shared via a dissertation defense. **If you are interested in attending the defense or receiving a recording of the defense (whether or not you participate in the survey), please contact Dana M. Cea or Stephen J. Leierer.**

Contact Persons and Information

Please contact Dana M. Cea at 919-960-1462 (text/call) or cead18@students.ecu.edu or Stephen J. Leierer at 252-744-6298 (call) or leierers@ecu.edu for any research-related questions. Also, contact the University & Medical Center Institutional Review Board (UMCIRB) at 252-744-2914 for questions about your rights as a research participant.

Resources

- Trans Lifeline's Peer Support Hotline: 1-877-565-8860; https://www.translifeline.org/hotline
- The Trevor Project: 1-866-488-7386; https://www.thetrevorproject.org/get-help-now/
- National Center for Transgender Equality: https://transequality.org/additional-help

Copy of Consent Form

If you agree to participate in this research, you agree to this consent form. You may save or print a copy of this form for your records.

Agree to Participate

Do you understand what you have read and agree to participate in the survey?

- Yes
- No

Appendix D: SURVEY QUESTIONS

Eligibility Questions

- Are you 18 years or older?
- In the last 12 months, have you been enrolled in at least one course at a public university or college (including community colleges) in the United States of America?
- Do you identify as transgender and/or gender nonbinary (including not limited to gender fluid, gender queer, agender)?
- Do you have at least one disability?

State Question, DSS Contact Question, and Accommodations Question

- In which state did you attend the public university or college where you were recently enrolled?
    - Drop down list of states with autofill feature
- Have you ever contacted the disability support office at the public university or college where you were recently enrolled?
- Did you receive accommodations from the disability support office at the public university or college where you were recently enrolled?

Academic Standing Question Checklist

Which of the following did you experience while enrolled at the public university or college? Select all that apply.

- Academic probation
- Academic dismissal
- Withdrawn from classes

- Dropped out of classes
- Graduated
- None of the above

Best Practices "Yes" or "No" or "Do Not Know" or "Prefer Not To Answer"

Please answer the following about the disability support office at your most recent public university or college. Even if you have not visited or contacted the office, please answer to the best of your knowledge.

- Do the DSS providers and administrators create a welcoming environment?
- Do the DSS providers and administrators use unbiased behaviors?
- Do the DSS providers and administrators ensure your inclusion in campus activities and groups?
- Do the DSS providers and administrators protect your confidentiality?
- Do the DSS providers and administrators indicate their participation in trans* affirmative trainings?
- Do the DSS providers and administrators offer to connect you with culturally sensitive counseling services?
- Do the DSS providers and administrators offer to connect you with career counseling or other vocational supports?
- Do the DSS providers and administrators hire staff who openly identify as transgender/gender nonbinary?
- Do the DSS providers and administrators hire staff who openly identify as having a disability?

- Do the DSS providers and administrators effectively advocate for your needs by monitoring your school's ongoing services and policies?
- Do the DSS providers and administrators ensure that school facilities are accessible for you?
- Do the DSS providers and administrators use unbiased assessment procedures that provide you equal access to DSS services?

Best Practices Checklist

Considering disability support services generally, which of the following practices used by DSS providers and administrators do you believe would most contribute to your success as a student? Even if you have not visited or contacted a disability support office, please answer to the best of your knowledge because your opinion matters.

- Creating a welcoming environment
- Using unbiased behaviors
- Ensuring your inclusion in campus activities and groups
- Protecting your confidentiality
- Indicating the office's participation in trans* affirmative trainings
- Offering to connect you with culturally sensitive counseling services
- Offering to connect you with career counseling or other vocational supports
- Hiring staff who openly identify as transgender/gender nonbinary
- Hiring staff who openly identify as having a disability
- Effectively advocating for your needs by monitoring your school's ongoing services and policies
- Ensuring that school facilities are accessible for you

- Using unbiased assessment procedures that provide you equal access to DSS services
- Additional practice(s): [free-text box]