ABSTRACT

Title of Dissertation:	AN INVESTIGATION OF FACTORS THAT INFLUENCE DISABILITY SELF-DISCLOSURE IN POSTSECONDARY STUDENTS
	Kathryn E. Sullivan, Doctor of Philosophy, 2022
Dissertation directed by:	Associate Professor Cixin Wang, Ph.D. Department of Counseling, Higher Education, and Special Education

When students with disabilities transition to postsecondary school, they must self-disclose their disability to their institution to receive accommodations. Despite the positive educational outcomes associated with receiving accommodations, many students with disabilities who received accommodations in high school do not go on to self-disclose to receive accommodations in postsecondary school. This study investigated factors that facilitate attitudes towards and the behavior of disability self-disclosure by postsecondary students for accommodations, including quality of transition support, self-determination (self-realization and psychological empowerment), and disability identity. Undergraduate participants were recruited for a survey-based study via university listservs and were included in the study if they had previously received accommodations in high school via an Individualized Education Plan (IEP) or a 504 plan, identified as having a nonapparent diagnosis, disability, or learning difference that impacted them educationally, and had attended college for at least one semester. Within the

sample (n=285), 67.6% of the participants had registered with their college or university to receive accommodations. Surprisingly, almost half of the participants in this study (45.6%) did not identify as individuals with a disability despite being legally qualified as students with disabilities in high school. Regressions and path analyses were conducted to determine the factors that significantly predicted self-disclosure attitudes and behaviors (i.e., registering for accommodations). The results indicated that high-quality transition experiences in high school positively predicted attitudes towards requesting accommodations and registering for accommodations. Furthermore, a significant indirect effect was found between the quality of transition support and attitudes toward requesting accommodations via disability identity. Contrary to hypotheses, while quality of transition predicted self-determination factors, self-determination factors did not significantly predict self-disclosure attitudes or registering for accommodations. Further exploring quality of transition factors (i.e., school support, home support, and direct discussions about registering with disability services) as predictors, having direct discussions about registering was found to directly predict self-disclosure attitudes and behaviors. A significant indirect effect was also found between school support and attitudes towards requesting accommodations via disability identity. Results of this study highlight the importance of instilling a positive disability identity to drive the self-disclosure process, as well as having direct discussions with students about the processes and procedures for disability self-disclosure during postsecondary transition. Finally, recommendations for secondary and postsecondary institutions were provided for preparing students with disabilities to navigate postsecondary disability services, and further implications for practice and research were discussed.

AN INVESTIGATION OF FACTORS THAT INFLUENCE DISABILITY SELF-DISCLOSURE IN POSTSECONDARY STUDENTS

by

Kathryn E. Sullivan

Dissertation submitted to the Faculty of the Graduate School of the
University of Maryland, College Park, in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
2022

Advisory Committee:
Professor Cixin Wang, Chair
Professor Andrea Chronis-Tuscano, Dean's Representative
Professor Ellen Fabian
Professor Ji Seung Yang
Special Member of the Graduate Faculty, Dr. Jo Ann Hutchinson

Acknowledgements

I am eternally grateful for all the people who have supported me while writing my dissertation and throughout my doctoral studies. I want to extend my sincerest gratitude to my advisor, Dr. Cixin Wang, who always helped guide me, encourage I would also like to extend sincere thanks to my committee for their guidance and feedback throughout this process.

I would like to thank my fellow lab members in the Bullying Prevention and Mental Health Promotion Lab, who have been so supportive and encouraging throughout this process. I would like to particularly thank Qianyu Zhou, who helped me tremendously with the data analysis for this project. I would also like to thank my cohort-mates, Leyla Babaturk and Kelsey McCurdy, who have been such consistent supporters and great listeners during our entire time in graduate school.

I would like to extend my love and gratitude to all my wonderful friends and family who encouraged me and made sure I was taking breaks and taking care of myself while writing this dissertation. I want to thank my mother in particular whose unconditional love and encouragement have always pushed me to do things that are difficult. Finally, I want to thank my fiancé, Stephan, who has supported me, picked me up when I was down, and been my rock through this entire process. Without the support of everyone above, this dissertation would not have been possible.

Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction

The number of students with disabilities attending college and university in the United States has dramatically increased since the Americans with Disabilities Act (ADA) passed in 1990. While 14.6% of students with disabilities enrolled in college in 1987, 32.5% of students with disabilities were enrolled in college by 2005 (U.S. Department of Education, 2010). Furthermore, between 2000 and 2018, the total number of students with disabilities in postsecondary education increased by 26% (National Center for Education Statistics, 2020). At the postsecondary level, students with disabilities are defined as those who have "a physical or mental impairment that substantially limits one or more major life activities" (ADA, 1990). Students experiencing functional limitations associated with their disability are eligible for accommodations, or adaptations that allow students to work around their disability (U.S. Department of Education Office for Civil Rights, 2011).

Research has determined myriad benefits to obtaining and utilizing accommodations in postsecondary education. More extended periods of accommodation use predict higher GPAs and less time to graduation for students with disabilities (Blasey, 2020). Accommodation use is also related to postsecondary retention (i.e., "staying in school"; Mamiseishvili & Koch, 2011), and students with disabilities characterize not receiving adequate accommodations as one reason for dropping out (Fichten et al., 2014). Furthermore, non-disclosure of disabilities has been tied to increased anxiety and decreased well-being (Fitzgerald & Paterson,

1995), while disclosing is associated with positive mental health outcomes (Corrigan et al., 2010).

Despite the benefits of accommodation usage, research has found that many students do not self-disclose their disability in order to receive accommodations. Newman and Madaus (2015) analyzed a large, nationally representative sample (the NLTS-2 study) and found that nearly two-thirds of students with disabilities do not disclose their disability to receive accommodations in postsecondary school. According to previous research, many college students with disabilities also may delay disclosing and requesting accommodations until they have already experienced academic difficulties (Kranke et al., 2013; Getzel & Thoma, 2008). The disparity between students qualified with a disability in high school and those who self-disclose in college remains largely understudied (Lindsay et al., 2018). This issue is most salient for individuals with nonapparent disabilities. According to previous research, having a disability that cannot be readily seen or discerned by others (i.e., a "nonapparent disability") may allow individuals to "pass" as not having a disability and thereby, deny identification with their disability status (Darling, 2003). Therefore, those with less visible disabilities may be less likely to identify as an individual with a disability.

There are important distinctions between the utilization of accommodations for students with disabilities in high school versus postsecondary school. At the Kindergarten-12th grade level, student accommodation plans, such as Individualized Education Plans (IEPs) and 504 Accommodations, are typically provided to teachers automatically to make adjustments in the classroom. In college and university

settings, to receive accommodations, the student is required to register and self-disclose their disability by sharing information about their disability with their disability services office at school, which includes providing professional documentation of their disability, as well as re-affirming their need for accommodations with their instructors each semester to use accommodations (Barnard-Brak et al. 2010).

Previous literature has recognized several psychological factors that may impact students' self-disclosure of their disability for accommodations, including self-determination, previous experiences with help-seeking and support, and acceptance or denial of the disability as part of their identity (De Cesarai, 2015). This study explored these factors (self-determination factors, transition support, and disability identity) as they relate to self-disclosure for accommodations in undergraduate postsecondary students.

Definition of Terms

Accommodations or academic accommodations "can be a device, practice, intervention, or procedure provided to a student with a disability that affords equal access to instruction or assessment" (p. 23). Accommodations do not change the content being taught in courses or reduce achievement expectations (McLaughlin, 2012). Accommodations received through a postsecondary institution differ based on students' individual needs and approval from disability services staff, with decisions made on a case-by-case basis (U.S. Government Accountability Office, 2009).

Self-disclosure means to "inform one's college of a disability for the purpose of seeking accommodations in higher education" (Penick, 2018, p.3). All students

who disclose do not necessarily receive accommodations and need to be found eligible. Students typically disclose to their Disability Services office on campus. Typically, they must also disclose and discuss accommodations separately with each instructor each semester if granted accommodations. In this process, they are not required to disclose their specific disability to their instructors. Still, they must identify themselves as students with a disability to each instructor to receive accommodations.

Transition or transition planning in this context refers to "a change in status from behaving primarily as a student to assuming emergent adult roles in the community. These roles include employment, participating in postsecondary education, maintaining a home, becoming involved in the community, and experiencing positive personal and social relationships. The process of enhancing transition involves participating and coordinating school programs, adult agency services, and natural supports within the community" (Halpern, 1994, p. 117).

Nonapparent Disabilities (also called "invisible disabilities") are disabilities that cannot be readily seen or discerned by others (Darling, 2003). According to Thompson-Ebanks (2018): "Examples of nonapparent disabilities include, but are not limited to, sensory disabilities (i.e. hearing or vision impairments); cognitive disabilities (i.e. traumatic brain injuries, Autism Spectrum Disorders, attention deficit hyperactivity disorder [ADHD] and learning disabilities); psychological disorders (i.e. depression, anxiety and mood disorders, post-traumatic stress disorder); and medical conditions (i.e. cancer, diabetes, multiple scoliosis, chronic fatigue syndrome and chronic pain)." Students with nonapparent disabilities differ from others in that

they must intentionally disclose their disability to others to make them aware. Furthermore, students may differ in their level of comfort with a particular disability label and may fear greater risk of being stigmatized or discriminated against.

Theoretical Framework

This study integrated three theoretical frameworks to examine factors that influence self-disclosure of disability to receive accommodations: social identity theory, help-seeking theory, and self-determination theory. The act of self-disclosing for accommodations is a behavior that can be defined in several ways. First, seeking accommodations is a form of help-seeking for a perceived functional limitation. The ADA (1990) defines disability as "a physical or mental impairment that substantially limits one or more major life activities." Furthermore, self-disclosure for accommodations is also a form of self-advocating. When disclosing, an individual is asserting their federally mandated civil right to an education that accommodates the impacts of their disability.

When a student engages in help-seeking for their disability, according to extant models (Cauce et al., 2002), they must recognize a concern or limitation exists, decide to engage in the help-seeking process, and identify appropriate sources of help, keeping in mind various potential cultural, contextual, or logistical barriers. In the case of students with disabilities in postsecondary education, the onus is on them to engage in the help-seeking and self-advocacy process for receiving accommodations. They must first recognize and understand their disability, requiring self-awareness. Then, they must be able to identify as a student who has a disability and take the further step of affirming and continuously acknowledging that identity in the process

of informing the disability services and their instructors. Finally, they must identify that accommodations and disability services will be an effective form of help. Potential barriers, in this case, would include not identifying as a student with a disability, or exhibiting avoidance of that label, according to Social Identity Theory (Tafjel, 1981). Prior positive experiences related to their disability, explanations of disability and systemic knowledge about disability in post-secondary education, school and family support in understanding and enacting accommodations, and opportunities to practice self-determination and self-advocacy skills (such as those presented in high-quality transition practices) were hypothesized to inform a more positive disability identity and increase self-advocacy. Therefore, students armed with a positive identity and self-awareness, skills, knowledge, and attitudes are likely to seek help and self-advocate for their disability effectively.

Quality transition support for students with disabilities was hypothesized to play an essential role in the later decision to seek accommodations. One emphasis of evidence-based and high-quality transition support is instilling self-advocacy or self-determination skills to reach educational or career goals (Shogren & Wehmeyer, 2020; Morningstar et al., 2010). Two of the self-determination factors noted as integral to the transition process, particularly for students with disabilities, and related to outcomes including self-advocacy and help-seeking are psychological empowerment and self-realization (Newman & Madaus, 2015; Shogren & Wehmeyer, 2020). Furthermore, it is hypothesized that previous positive experiences interacting with one's disability identity (Tafjel, 1981), including positive experiences with school staff and family regarding disability services, would promote a positive

disability identity that would, in turn, reduced avoidance of that label and promotes help-seeking/ self-advocacy for future supports.

Statement of Research Questions

This study investigated the factors that facilitate disability disclosure of postsecondary students for accommodations, including quality of transition support, self-determination, and disability identity. Students with nonapparent disabilities who have not disclosed to disability services constitute a "hidden population" that should be given additional attention in the literature (Grimes et al., 2020; O'Shea & Meyer, 2016). No other study, to my knowledge, has examined all these factors together, using a sample with students who have self-disclosed for accommodations and those who have not. The study attempted to answer the following research questions via quantitative methods:

1. Do self-determination factors (psychological empowerment and self-realization), quality of transition support (during high school), and disability identity predict attitudes toward requesting accommodations or registration with disability services?
2. Does the quality of secondary-postsecondary transition support predict disability identity or self-determination factors (psychological empowerment and self-realization)?
3. Do disability identity or self-determination factors (psychological empowerment and self-realization) mediate relations between quality of transition support and attitudes towards requesting accommodations?

Additionally, demographic factors (e.g., gender, race, age, disability type, and primary disability) were explored and included in models as control variables.

Chapter 2: Literature Review

The literature reviewed for this study was obtained through a comprehensive search of multiple databases. To determine the relevance to the current research, articles were reviewed if they met the following criteria: a) the research was conducted with undergraduate students primarily in the United States, b) the research focused on undergraduate students with disabilities, accommodation, and other support usages, or the transition process from high school to post-secondary school, and c) the research was a published peer-reviewed article, published dissertation or thesis, or other published scholarly work, such as book chapters.

Historical and Legal Context

Before the passage of Section 504 of the Rehabilitation Act of 1973 (Section 504), individuals with disabilities were not guaranteed equal rights or access to public education. Section 504 then assured that individuals with disabilities could not be discriminated against in any program receiving federal funding, including schools. Section 504, therefore, opened the door for students to be accommodated to allow them to access to postsecondary education. This legislation was considered monumental step in the struggle for disability rights (Madaus et al., 2018). Following in footsteps of Section 504, the 1975 Education for All Handicapped Children Act, later renewed to become the Individuals with Disabilities Education Act (IDEA), mandated and specified special education services for students with disabilities through high school graduation. IDEA amendments also established transition planning for students after high school (U.S. Department of Education, 2010). Finally, the Americans with Disabilities Act (ADA) was passed in 1990 to provide

further civil rights protections and access for individuals with disabilities in the areas of employment, transportation, public spaces, and education (U.S. Department of Education, 2010).

How disability is defined and how eligibility for services is determined varies depending on the applicable law. IDEA which applies to students from early childhood through high school graduation, defines disability in terms of educational impact and provides services to students if their disability is determined to fall within 13 disability categories. These services are part of the student's individual education plan (IEP) which provides accommodations and modifications to the curriculum to meet each student's needs (U.S. Department of Education, 2010). Students in K-12 education are also often provided accommodations through Section 504 if they have a disability (often called a 504 plan). However, the Section 504 legislation defines disability more broadly than under IDEA as an impairment that "substantially limits one or more major life activities" (U.S. Department of Education, 2010). Once a student with disabilities enters postsecondary education, they are no longer covered by IDEA and are instead provided accommodations via Section 504 and the ADA.

The number of students with disabilities attending college has increased significantly since 1990 (U.S. Department of Education, 2010), likely due to the compounding impacts of the ADA, Section 504, and IDEA. However, studies have shown that students with disabilities attending postsecondary education tend to graduate at lower rates (Cortiella & Horowitz, 2014; Newman et al., 2011) and have lower GPAs than their peers without disabilities (Richman, 2014). According to Newman et al. (2011), only 34% of 4-year college students with disabilities graduate.

Disability Services in Postsecondary School

The process for receiving accommodations in postsecondary education differs significantly from receiving disability services in K-12 education when students with disabilities are legally mandated to receive educational support through the Individuals with Disabilities Education Act of 2004 (IDEA; P.L. 108-446). The IDEA additionally requires that education agencies identify and assess students for potential disabilities and provide them with an individualized education program (IEP) if they are found eligible. An IEP provides for educational modifications and accommodations to enable the student to advance towards pre-determined educational goals. These goals and IEP decisions are determined and agreed upon by a team of educators and the student's caregivers. While student involvement in IEP planning and goals may increase in high school, research has indicated that students typically have minimal understanding and participation in the IEP process (Martin, 2010).

When a student enters postsecondary education, IDEA no longer applies, and they are provided accommodations as part of civil rights protections via Section 504 of the Rehabilitation Act of 1973 (Section 504; P.L. 93-112). Section 504 ensures that students with disabilities have access to the physical and educational environment and states that colleges must provide academic accommodations to ensure that requirements "do not discriminate or have the effect of discriminating, on the basis of handicap, against a qualified handicapped applicant or student" (§140.44(a)). However, at the postsecondary level, institutions are legally required by Section 504 and Title II of the Americans with Disabilities Act of 1990 (Title II) to provide appropriate academic accommodations to determine that students with disabilities are

not being discriminated against. Therefore, unlike in K-12 education, services at the postsecondary level generally do not "change the content being taught, nor reduce achievement expectations" but instead work to provide equal access to educational services (U.S. Department of Education Office for Civil Rights, 2011).

In college and university settings, disability self-disclosure is defined as a student "sharing personal information about one's disability to the disability services office at one's college or university, including providing professional documentation of the disability including how it impacts the student" (Thompson-Ebanks & Jarman, 2018, p.286). If students do not disclose their disability to the disability services office at their institution, they do not receive legally protected accommodations. Generally, students must disclose their need for accommodations, but not their specific disability, to each instructor when they want to use accommodations. The first step in starting the process is formally disclosing a disability to their institution's disability services office. Formal accommodations that are provided differ based on the student's documented individual needs and approval from disability services staff (U.S. Department of Education Office for Civil Rights, 2011). The most common accommodations include extended time for exams, classroom note-takers or provided course notes, assistance with learning and study skills, alternative exam formats, and adaptive equipment and technology (Raue & Lewis, 2011).

Self-disclosure of disability status in postsecondary education is always voluntary, and students also need to "opt-in" to using accommodation each semester and for each class. Students are typically required to inform each instructor to receive accommodations. In contrast, K-12 educators are typically informed about a student's

needs, disability, and IEP by other school staff without student involvement (U.S. Department of Education Office for Civil Rights, 2011).

Students with Disabilities in Postsecondary Education

Using a nationally representative data set of 2,470 postsecondary students collecting data from 2001 through 2009, Newman and Madaus (2015) reported that students with learning disabilities accounted for 69% of students with disabilities in postsecondary school. For other disabilities, students with emotional disturbances accounted for 9%, students with intellectual disabilities accounted for 6%, students with other health impairments (including ADHD) accounted for 5%, and students with speech-language impairments accounted for 5%. Students in all other categories accounted for 6% of participants. It is important to note that because Newman and Madaus utilized a longitudinal methodology, their categories were taken from the IDEA criteria established for the participants students in high school. Notably, 36% of those students with other disabilities were also reported to have ADHD. Other studies have also noted that the largest groups of students with disabilities in postsecondary education include those with learning disabilities (31%), ADHD (18%), and psychological disabilities (15%; Raue & Lewis, 2011).

Newman and Madaus (2015) also analyzed racial and gender demographics of students with disabilities in postsecondary education. In their sample, 62% of students in the sample with disabilities were male and 66% of students with disabilities who attended postsecondary education were White, compared to 18% of students identified as African American and 14% identified as Hispanic. Furthermore, 91% of

students with disabilities in postsecondary education had English reported as their primary language.

Guiding Theories

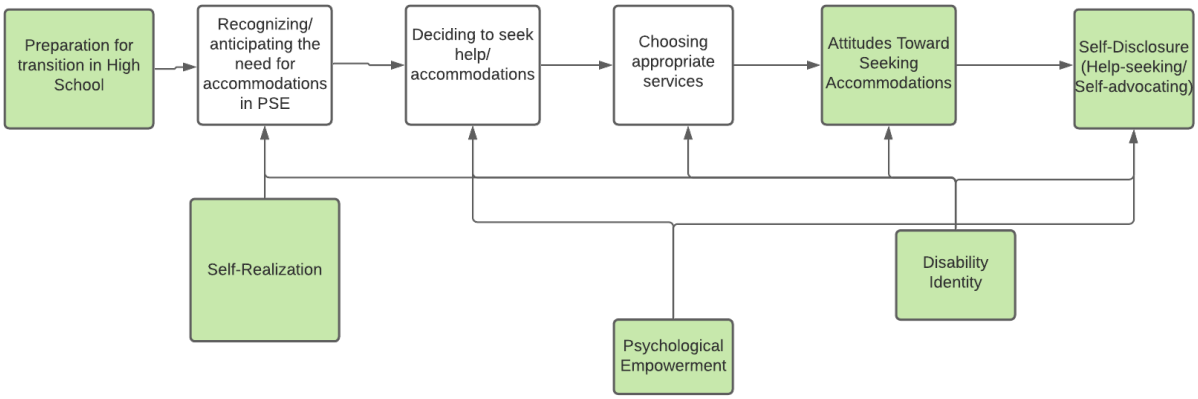
I will summarize three theories guiding this study below: self-determination theory, social identity theory, and Cauce et al. (2002)'s theory of help-seeking. I combined these three theories into the proposed process model to guide this study (Figure 1). According to these theories, transition support in high school with an emphasis on self-determination skills and school/ family support of a student with a disability should effectively prepare students to self-disclose to disability services for accommodations.

The process of disability self-disclosure for postsecondary students can be considered both a help-seeking process and a process of self-advocating for oneself (De Cesarei, 2015). In this context, self-advocacy is the ability to communicate one's needs and wants and to make decisions about the supports needed to achieve them (Stodden, Conway, & Chang, 2003). According to De Cesarai (2015) factors that promote the help-seeking/ self-advocating processes of self-disclosure are previous positive experiences related to disability within both the school and family domains, high self-efficacy, self-awareness, and self-worth, lower perceived stigma, and lower denial or issues with identity. The proposed model asserts that self-disclosure is facilitated by quality preparation in high school, which promotes self-determination (psychological empowerment and self-realization) as well as a positive disability identity via positive experiences related to disability. These self-determination and identity factors aid in recognizing and anticipating the need for accommodations in

postsecondary education and promote the decision to seek help, choose the appropriate services, positive attitudes toward accommodations, and finally the act of self-disclosure itself.

Figure 1

Proposed Theoretical Model for Self-Disclosure



Note. Factors highlighted in green were measured in the study. PSE= postsecondary education.

Social Identity Theory

One guiding theory underpinning this study is social identity theory, first developed by Henri Tajfel in 1979. Tafjel proposes that the groups to which individuals belong, such as their social class, family, or other groups, serve as an essential part of their identity and self-concept. This theory, therefore, explains the reactions or behaviors of individuals to identifying with or being assigned to a "low-status" or marginalized group. Individuals strive to maintain a positive social identity. Therefore, members of marginalized or stigmatized groups may cope by detaching themselves from the marginalized group. Detachment from the identity includes avoiding situations that may affirm or trigger thoughts of the identity, such as disclosing the identity to others. Therefore, distancing oneself from a marginalized or

stigmatized identity is a strategy used by individuals to lessen the impact of negative evaluations of the identity or avoid negative feelings that may arise from accepting the identity (Tajfel, 1981). Consequently, individuals in these groups may attempt to "pass for normal," particularly if the identity is not readily apparent to others (McVittie et al., 2008).

Disability Identity

Identity allows individuals to "make sense of themselves" (Oyserman et al., 2012). According to Hammack (2015), the concept of identity is related to sameness and difference at both the individual and social categorization levels and group affiliation. Therefore, identities encompass views of the self (e.g., personality traits) and connections to others, including group affiliations (e.g., social bonds and roles; Oyserman, 2012). An individual with a disability must navigate their functional impairments (whether visible or invisible) while also navigating the experience of the social meaning around their disability as part of taking on a disability identity (Forber-Pratt et al., 2017).

Because people with disabilities are considered members of a marginalized group due to historical experiences of stigmatization, prejudice, and discrimination, those with nonapparent disabilities must determine their level of affiliation with the non-disabled dominant culture and identity versus affiliate with a disability identity and express pride in their group membership (Gill, 1997). An individual with a positive disability identity espouses positive self-beliefs as an individual with a disability and positive affiliations to other members of the disability community (Dunn, 2015). Individuals can possess varying degrees of disability identity beliefs,

including not viewing oneself as a person with a disability (low or no disability identity) to affiliating with disability without feeling connected to the larger community, to viewing disability as part of one's self-concept, and actively working towards advocacy (Dunn, 2015). Furthermore, disability identity is not always salient or activated in the minds of individuals with disabilities. Just as other forms of identity may be called to mind when faced with a situation related to a particular identity, those with disabilities have their identity activated when engaging in activities related to their disability status (Dunn, 2015).

Forber-Pratt et al. (2017), in their literature review focused on the construct of disability identity, make a critical point about disability identity formation. While social identity is often formed through modeling and mirroring those around you, many individuals with disabilities do not grow up around others with disabilities or may not be aware of the disability status of those around them. In fact, parents and caregivers to children with disabilities may or may not have disabilities themselves. Therefore, individuals with disabilities usually process their disability in the context of medical and rehabilitation professionals, educators, and caregivers, but not with other people with disabilities. Those supporting individuals with disabilities (e.g., teachers, caregivers, rehabilitation counselors, school staff) bear a responsibility to help those with disabilities process and shape a positive identity and build connections with a larger disability community.

Stigma. Social identity theory, and more specifically, disability identity, intersects with stigma in various ways. Goffman (1963) conceptualized stigma as an attribute that leads others to reduce the individual who possesses it from a "whole and

usual person to a tainted, discounted one" (p.3). Disability is considered a stigma, an identity or attribute perceived by others to be broadly negative in a given context or culture. Furthermore, disability is stigmatizing, given that it marks those who possess it as distinct and somehow different from others (Dunn, 2015). Research indicates that non-disabled people frequently stigmatize those with disabilities (Corrigan, 2014). Individuals with disabilities are often faced with several detrimental reactions or judgments from others, including being put on a pedestal for enduring, others acting overly kind to them, others assigning blame to them for their disability (via the "just-world hypothesis" that the less fortunate must somehow be responsible for their fate), avoidance due to the fear that their disability may spread, or the perception from others that they are incompetent (Dunn, 2015).

Corrigan and colleagues (Corrigan et al. 2005; Corrigan and Watson 2002) proposed an alternative model of stigma and suggested that stigma manifests in two levels: public stigma (i.e., enacted stigma, social stigma, or perceived stigma) and self-stigma (i.e., internalized stigma or felt stigma). Public stigma is also called structural stigma and recounts how stigma may be perpetuated by cultures and institutions, based on an external evaluation of an individual by societal norms that lead to inequality and discrimination (Corrigan & Watson, 2002; Grimes et al., 2020).

Research has suggested that stigma may be more harmful when it is internalized, called "self-stigma" (Ritsher & Phelan 2004). Based on Link's "modified labeling theory" (1987), stigmatized individuals may develop the expectations of being devalued and discriminated against by society. These expectations may, in turn, demoralize stigmatized individuals, leading to reduced

self-esteem and self-efficacy (Link 1987; Markowitz 1998). According to Crocker and Major (1989), an individual who experiences self-stigma first become aware of stereotypes related to their stigmatized identity, then agrees with those stereotypes, and finally, applies those stereotypes to themselves.

Self-stigma decreases individuals' willingness to disclose their stigmatized identity to those around them (Grimes et al., 2017; Clement et al., 2014). Those with less self-stigma may respond differently to public stigma and instead fight back against negative stereotypes and attitudes (Corrigan and Watson 2002). Therefore, instead of an internal attribution and self-stigma, these individuals can view their adversity as prejudice and discrimination in society and maintain a more positive self-concept (Corrigan & Watson, 2002). Stigma impacts disability identity closely, because social identity theory notes that those who avoid or deny their disability identity are doing so out of awareness that the identity itself is stigmatized or marginalized (Dunn et al., 2015).

Forming a Positive Disability Identity. A positive disability identity is often conceptualized as both the acceptance of a disability and engagement with the larger disability community (Forber-Pratt et al., 2017). Hahn and Belt (2004) conceptualized disability identity as the presence of both disability acceptance and disability affirmation. In this conceptualization, disability affirmation is described as a shift from "shame to pride" in one's identity as a person with a disability. For instance, studies have recognized that many with disabilities come to acknowledge their disability as potentially stigmatizing, but ultimately part of who they are (Kinavey, 2006), and recognize both the challenges and strengths associated with their disability

(Nalavany et al., 2011). One aspect hypothesized to factor into an individual's conception of their disability identity is whether they subscribe to a "medical" or "social" model of disability. Those who subscribe to a medical model are likely to view their disability through the lens of deficits and their own need to compensate. However, those who subscribe to a social model are more likely to understand the shortcomings in the environment to adapt to their individual needs (Darling & Heckert, 2010). Therefore, those who have integrated a more positive model of disability identity are more apt to seek and advocate for accommodations made within the environment.

Theories of Help-Seeking

Help-seeking models will theoretically guide this study because seeking accommodations for students with disabilities is considered a form of help-seeking (De Cesarai, 2015). While many models focus specifically on mental health help-seeking, educational help-seeking, or health services help-seeking, seeking accommodations encompasses all of these models (Lee, 1997).

Cauce et al.'s (2002) framework for help-seeking proposes that three interconnected steps determine help-seeking: 1) recognizing the problem, 2) deciding to seek help, and 3) choosing the appropriate services. Their model recognizes that help-seeking cannot begin until a problem or need for help is identified, and it is assessed that the situation requires intervention. Furthermore, they consider that deciding to seek help is further complicated by variables including an individual's racial and cultural background, gender, and the nature of the problem. Finally, selecting the type of services appropriate for the situation, whether formal or

informal, or whether services are even available to help with the problem, is the final stage in the process. The model also considers the role of culture and context as an integral element in an individual's decision to seek help, which accounts for cultural and contextual barriers, attitudes, and facilitative factors (Cauce et al., 2002). In the case of self-disclosure for accommodations, individuals must recognize a functional limitation related to their disability that could be accommodated (recognizing the problem). Then, they must decide to seek help, and, if they identify themselves as an individual with a disability, may choose the disability services office on their campus to self-disclose to receive accommodations.

Self-Determination Theory

Self-determination theory is a theory of motivation that provides a framework for understanding behavior based on an individual's needs and competencies (Deci & Ryan, 2000). The theory is founded on the premise that individuals have an inherent tendency towards growth, and there are three core needs that facilitate that growth: autonomy, competence, and relatedness. Autonomy is the need to feel control over one's behaviors, competence is the need to feel as though behaviors were enacted effectively, and relatedness is the need to have meaningful interactions and relationships with other people. When those three core needs are met, individuals experience higher degrees of motivation to accomplish goals (Deci & Ryan, 2000).

In special education or disability literature, self-determination is described and applied somewhat differently than the Deci and Ryan (2000) framework. According to Field et al. (1998), self-determination is:

A combination of skills, knowledge, and beliefs that enable a person to engage in goal-directed, self-regulated, autonomous behavior. Understanding one's strengths and limitations, together with a belief in oneself as capable and effective, is essential to self-determination. When acting based on these skills and attitudes, individuals have greater ability to take control of their lives and assume the role of successful adults in our society. (p. 2)

As conceptualized by Wehmeyer, who was the first to apply self-determination to individuals with disabilities, self-determination is "the right and capacity of individuals to exert control over and direct their lives" (Wehmeyer et al., 2004). The functional theory of self-determination (Wehmeyer et al., 1997) describes the construct of self-determination as when an individual acts "as the primary causal agent in one's life" to "maintain or improve one's quality of life" (Wehmeyer, 2005, p. 117). The functional theory states that self-determination emerges across the life span as children and adolescents learn skills and develop attitudes that enable them to be active agents in their lives. According to the theory, as children and adolescents develop self-determination skills, their capabilities to perform behaviors such as problem-solving, self-advocacy, and goal attainment as well as their self-awareness and perceptions of efficacy and outcome expectations increase (Test et al., 2006; Wehmeyer & Field, 2007). Wehmeyer and Schwartz (1997) noted: "self-determination is an important educational outcome if youth with disabilities are to achieve positive adult outcomes after they leave high school" (p. 245).

Wehmeyer (1997, 1999) conceptualized self-determined individuals as those with autonomy, self-regulation, psychological empowerment, and self-realization.

The theory defines autonomy as the degree to which a person (a) acts according to their own preferences, interests, and abilities, and (b) is free from undue external influence or interference. Self-realization is described as having a good understanding of your strengths and support needs. Psychological empowerment is defined as a belief in the relationship between your actions and the outcomes you experience. This study will focus on psychological empowerment and self-realization because they are hypothesized to relate most strongly to self-disclosure, self-advocacy, and help-seeking (Shogren & Wehmeyer, 2020; Lam, 2015; Newman & Madaus, 2015).

Psychological empowerment refers to a combination of attitudes and abilities leading individuals to believe they can achieve desired results. When individuals are psychologically empowered, they believe that they have control over their circumstances (internal locus of control), that they possess the necessary skills to achieve their objectives (self-efficacy), and that their actions will produce desired results (outcome expectations; Wehmeyer, 1997). Zimmerman (1995) further conceptualized psychological empowerment as the process wherein individuals "gain mastery over issues of concern to them" (p. 581). This includes understanding and acquiring knowledge about resources available to them in their environment and developing ways to manage and use appropriate resources (Lam, 2015). The component of psychological empowerment, in particular, has been found to correlate with better self-advocacy for disability services (Morningstar et al., 2010).

Wehmeyer (2003) defines self-realization as understanding one's strengths and limitations, including knowledge of needs. Wehmeyer's conceptualization of self-realization includes components such as self-awareness, self-acceptance, self-

confidence, self-esteem, and self-actualization (Wehmeyer et al., 1995). It is hypothesized that self-realization or self-knowledge is developed through previous experiences for discovery and the ability to incorporate those experiences into their current self-knowledge (Anctil et al., 2008; Gerber et al., 1992). Researchers have suggested that when individuals transition into adult life with a better understanding of their disability and disability-related needs, they are more likely to succeed (Test et al., 2006; Wehmeyer & Palmer, 2003). The emphasis on self-determination in individuals with disabilities arose from the disability civil rights and self-advocacy movements, as individuals with disabilities fought for their right to be involved in their own life decisions (Shogren & Wehmeyer, 2020).

Certain aspects of self-determination have been hypothesized to apply more specifically to students in postsecondary education. Durlak, Rose, and Bursuck (1994) determined that instruction in self-awareness and self-advocacy played a critical role in improving skills and academic experiences in postsecondary environments for individuals with disabilities. Jameson (2007) conducted a study examining the level of self-determination of students with disabilities attending community colleges and how that related to postsecondary success. They found that high degrees of self-determination, specifically psychological empowerment, correlated with higher postsecondary education success. Furthermore, Anctil et al. (2008) conducted a qualitative study with college students with learning disabilities who were high in self-determination qualities to explore factors related to successful outcomes in postsecondary education. They found these students reported high self-realization and self-advocacy skills to successfully navigate college transition.

Self-Advocacy

One construct considered as a component skill and a concept that underpins self-determination is self-advocacy (Test et al., 2005; Field, 1996). Self-advocacy is the ability to communicate one's needs and wants and to make decisions about the supports needed to achieve them (Stodden, Conway, & Chang, 2003). Research shows self-advocacy skills are related to academic performance and successful adaptation to college (Adams & Proctor, 2010; Getzel & Thoma, 2008; Hadley, 2006; Murray, Lombardi, & Kosty, 2014; Thoma & Wehmeyer, 2005). In fact, self-advocacy is a crucial component of self-determination curricula in K-12 settings for students with disabilities (Ward, 2005).

Self-advocacy is an important skill, particularly for students who need to articulate their strengths and needs to seek accommodations in postsecondary education and employment (Test et al., 2005). Test and colleagues (2005) developed a conceptual framework of self-advocacy that included four components: knowledge of self, knowledge of rights, communication, and leadership. According to their framework, the foundation of self-advocacy includes knowledge of self and knowledge of rights, also defined as the "tools of self-advocacy." The next component of the framework, communication, is communicating one's self-knowledge and rights through skills including assertiveness, negotiation, and problem-solving. Finally, Test et al. (2005) identify the final component of the self-advocacy framework as leadership, which is defined as an individual's movement from advocating for oneself to advocating for others based on common needs. Therefore, individuals with disabilities first learn and understand their own strengths

and requirements related to their disability, develop the skills to advocate for their own strengths and needs, and finally, advocate more broadly for those who have similar strengths and needs. Overall, self-advocacy for individuals with disabilities includes (a) understanding one's disability and how they learn best; (b) knowing one's rights and responsibilities as a person with a disability; and (c) being able to communicate, assert, and negotiate one's needs (Test et al., 2005).

Self-Determination and Transition

Transition planning for students with disabilities describes activities meant to prepare students to move successfully from high school to either career or further education (U.S. Department of Education, 2011). Self-determination has been intertwined with the transition process since the 1990 reauthorization of the Individuals with Disabilities Education Act (IDEA) required increased student involvement in transition planning. Self-determination is an important component of transition planning, as it empowers individuals with disabilities to take ownership over their lives and future trajectories (Shogren & Wehmeyer, 2020). Since 1990, there has been an increased emphasis on psychological factors such as self-determination in education, particularly transition-age students with disabilities (Morningstar et al., 2017). This may largely be attributed to the funding and support for programs that enhance self-determination by the federal government (Wehmeyer et al., 2003). This promoted a focus on "engaging students in the transition and education planning as a means to promote self-determination" (Wehmeyer & Field, 2007, pp. 47). This is further bolstered by students with disabilities themselves reporting that direct instruction and opportunities to practice self-determination are

important for students who transition to post-secondary education (Thoma & Getzel, 2008).

Morningstar et al. (2010) examined the relationship between high school transition preparation and self-determination measures among students with disabilities attending 4-year colleges and community colleges. The study sample included 76 college students with disabilities, a majority of whom identified as having a learning disability (65%). The researchers utilized a quantitative, cross-sectional approach and conceptualized self-determination as hope, locus of control, and psychological empowerment (utilizing the psychological empowerment subscale of the ARC self-determination scale), which were found to correlate with quality transition support measures. They gathered data using a survey of students' self-reported high school transition quality, including the factors of family involvement, school involvement, skill development in self-determination, involvement in their IEP process, and postsecondary skill preparation. The researchers found transition variables were moderately correlated with self-determination factors. Significantly, family involvement in supporting and promoting self-determination had the highest correlations with self-determination factors, ranging from .47 to .40. Of the school involvement factors, student involvement in their IEP meetings had the lowest correlations with self-determination (.25 to .27). Self-determination skill development and post-secondary skill preparation had higher but still moderate correlations (.34 to .37). It should be noted that the sampled survey participants were already registered with disability services.

During the transition from high school, young adults and their families typically become their own advocates for services (Henninger & Taylor, 2014). Because of this, one major goal of transition support services is to provide students with the self-awareness and self-advocacy skills that they will need after high school (Joyce & Rossen, 2006). IDEA (2004) requires that all students in special education programs ages 16 and older have an individualized education plan that includes appropriate postsecondary goals and the services needed to help the student reach those goals. However, Newman et al. (2016) reported that as many as one-third to one-half of high school students in special education did not receive any transition services in high school.

Qualities of Effective Transition Services

Qualities of effective programs to promote postsecondary transition include instruction of academic expectations and generally available supports in postsecondary school, knowledge, and instruction in the impact of their disability, and potentially specific instruction on how to request and access supports (Madaus et al., 2014). Morningstar et al. (2010) identified several key areas to address in transition support that lead to positive outcomes, including student involvement in transition and IEP planning, skill development and opportunities for self-determination, and postsecondary outcome preparation. Hengen and Weaver (2018) found that students who were more active members of their 504/IEP teams in high school reported higher self-advocacy at the postsecondary level. Other researchers have contended that students need skills to successfully transition to postsecondary education and be

provided instruction in self-advocacy, self-regulation, internal locus of control, and self-knowledge (Hong et al., 2007).

> Morningstar et al. (2010) additionally emphasized the role family and home support plays in transition support and IEP preparation and discussion. Family involvement can play an integral role in building self-determination skills (Morningstar et al., 2010; Newman, 2005). College students with disabilities with more developed self-determination skills report high levels of family involvement in transition planning, particularly in modeling advocating for services at the high school level (Anctil et al., 2008).

Inadequacy of Transition Services

Despite the continued push for students to be provided support that facilitates self-determination skills during transition, there are many indicators that transition support services do not meet these goals. First, recent research suggests that fewer students report receiving transition services than previously (Shogren & Wehmeyer, 2020). According to the literature, students report not typically attending IEP or transition planning meetings (Anctil et al., 2008; Newman et al., 2016; Penick, 2018). Additionally, while there has been a significant push to have students attend their IEP transition meetings in recent years, IEP meeting attendance alone does not necessarily convey participation and engagement in transition planning. While students may often begin to attend IEP meetings, research suggests that do not frequently speak during meetings (Martin et al., 2006) or fully understand what is happening in the meeting (Martin et al., 2004).

Once students have arrived at college, it is then necessary for them to appropriately self-advocate and communicate their needs. Janiga and Costenbader (2002) surveyed university-based disability service personnel and found they did not feel students were adequately prepared for postsecondary education for both general differences between college and high school and for specific disability-related metrics such as self-advocacy skills and knowledge of their own strengths and weaknesses. Shreiner (2007) additionally found that high school seniors with disabilities about to transition were not able to provide adequate examples of their strengths and weaknesses (one aspect of self-realization) and how these factors might impact their performance in college. It is also important to note that many students with disabilities in high school do not qualify for special education services under IDEA because of differences in laws and eligibility criteria. For example, those who receive accommodations under Section 504 often may not receive formal, school-based transition planning services because it is not mandated by law (Stodden et al., 2002).

Summary

Disability self-disclosure is considered both a form of self-advocacy and a help-seeking process (De Cesarei, 2015; Test et al., 2005). Self-advocacy for individuals with disabilities includes (a) understanding one's disability and how they learn best; (b) knowing one's rights and responsibilities as a person with a disability; and (c) being able to communicate, assert, and negotiate one's needs (Test et al., 2005). The skills and attitudes needed for self-advocacy are elements of self-determined behavior, which has emerged as an important area of study for postsecondary students because of the higher demands for self-advocacy (Shogren &

Wehmeyer, 2020; Morningstar et al., 2010). Despite the emphasis on self-determination skills for individuals with disabilities and the emphasis on promoting them via transition supports, only a few studies have investigated relations between transition supports, self-determination skills, and disability self-disclosure in postsecondary students (Newman & Madaus, 2015; Lam, 2015). An area that has received even less attention in the research is disability identity. Previous experiences related to disability, such as in quality transition support, theoretically would promote a more positive disability identity, which would then promote more positive attitudes toward disability supports and self-disclosure.

Research on Factors Related to Self-Disclosure

Some prior studies have explored the individual factors related to students' disclosure of disability status and use of disability accommodations during post-secondary education. Lindsay, Cagliostro, and Carafa (2018) conducted a systematic review of the literature on disability disclosure, focusing on the barriers and facilitators of disclosing a disability for students in post-secondary educational institutions. They found 36 total studies that met their inclusion criteria, 26 qualitative and ten quantitative. Reviewing the literature, themes that were apparent across studies included students experiencing stigma or discrimination, lack of knowledge, logistical barriers, attitudes towards disclosure, and type of disability or other identity factors. Researchers have additionally noted the importance of self-determination (Newman et al., 2014; 2015) and disability identity (Lam, 2015; Penick, 2018) in the decision to disclose and access disability supports. Those factors will be explored

below and added to in the context of disability identity, self-determination, and transition preparation.

Some students with disabilities may decide not to disclose their disability or seek accommodations in college for different reasons. As Newman & Madeus (2015) point out, the fact that students are not registering for accommodations in postsecondary school after receiving them in high school could mean that they have found a fit between their strengths and needs in their post-secondary education path, and therefore no longer need accommodations. However, other research has asserted that this is not the complete picture, and many students face barriers that prevent them from seeking needed accommodations. Getzel and Thoma (2008) conducted focus groups with 34 postsecondary students with disabilities to further explore their reasons for not disclosing and seeking accommodations. The students reported initial reluctance to self-advocate, then experiencing academic difficulty, before seeking accommodations and self-disclosing. Before self-disclosure, the individuals reported they were required to develop skills including problem-solving, learning about their disability, and self-management.

Attitudes Toward Requesting Accommodations

Students' attitudes toward requesting accommodations have been found to significantly predict disability disclosure and accommodation use (Barnard-Brak et al., 2010; Monagle, 2015).

Barnard-Brak et al. (2010) studied the predictors of student's use of accommodations, including willingness and attitude toward requesting accommodations. They measured attitudes using the Attitudes Toward Requesting

Accommodations (ATRA) scale, which encompasses four factors: academic integrity of accommodations, willingness to disclose, acceptance of disability, and factors related to the accommodations process (such as concerns about requesting accommodations through the disability services office). They found that the two significant predictors of accommodation registration were their attitudes towards requesting accommodations and the type of institution they attended (i.e., students in smaller, private schools were more likely to use accommodations).

Lack of Awareness/ Lack of Knowledge about Services

Current literature indicates that students may be unprepared to access services and advocate for themselves in the postsecondary environment. Research suggests that many students are not aware that their diagnosis qualifies them as students with a disability and makes them potentially eligible for accommodations (Lindsay et al., 2018). Cawthon and Cole (2010) conducted a qualitative study of undergraduate students with learning disabilities. They found that students lacked knowledge of their IEPs from high school and the specifics of what kinds of supports they might need in postsecondary school. This is also complicated by logistical factors, such as the point that documentation required by disability services offices may differ between high school and postsecondary school (Shaw et al., 2010).

Intermittent or Lack of Need for Services

It is vital to establish that not all students with disabilities require accommodations (Thompson-Ebanks & Jarman, 2018). For instance, there are students whose daily or academic functioning is not impeded by their disability or can manage their disability symptoms using medication or other devices. These students

may already receive services that seem to control their disability symptoms elsewhere, including medication, therapy, learning support services, or other social or informal supports. Therefore, while they may be eligible for accommodations at their institution, these students may not seek out or utilize accommodations. Additionally, even those that need or would benefit from accommodations may choose not to self-disclose and request services (Cook et al., 2009). Researchers have determined that students with disabilities, particularly nonapparent disabilities, may delay requesting accommodations until they are already experiencing academic difficulties (Kranke et al., 2013; Getzel & Thoma, 2008). Additionally, some students may be self-advocating with instructors when their needs arise and disclosing their needs "informally." However, in these cases, the accommodations they receive are not protected by law. This process is influenced by the student's comfort level with each professor and their perception of acceptance within the conversation (Thompson-Ebanks & Jarman, 2018).

High School Transition Preparation

Transition preparation for students with disabilities in high school has been tied to disability self-disclosure, though results have been mixed depending on the type of institution attended by students (Newman et al., 2015; Morningstar et al., 2015). Newman et al., (2015) analyzed collected data from the National Longitudinal Transition Study-2 (NLTS-2) to determine if receiving transition planning education and having a transition plan that specified accommodations for postsecondary education impacted receipt of disability-specific services. The study included 1,210 youth who had received special education services during high school that reported

postsecondary school attendance and utilized dichotomous measures of receiving transition planning education and having a plan with postsecondary accommodations listed based on reports by school personnel. The analysis found that the presence of transition planning significantly increased the likelihood of receiving disability services for students attending 2-year institutions and career and technical education (CTE) schools, but not for students attending 4-year universities.

Barnard-Brak et al. (2013) analyzed a nine-month pilot program for high school seniors with disabilities providing transition support via one-to-one mentoring. The study included 43 high school seniors with disabilities, the majority of which were learning disabilities (65%). The students met weekly for one hour with graduate student mentors, who provided transition services, including role-playing self-advocacy activities, discussing services available to individuals with disabilities, and campus visits, including meeting with personnel in disability services offices. Following the interventions, Barnard-Brak and colleagues found a significant decrease in negative attitudes toward requesting accommodations.

Self-Determination

Research has been mixed on the topic of how self-determination leads to self-disclosure. Newman and Madaus (2015) found that of the three self-determination factors in Wehmeyer's (1995; 1997) model that they explored (psychological empowerment, autonomy, and self-realization), only self-realization negatively predicted the use of accommodations for students at 2-year institutions. The authors hypothesized that this could be because students with disabilities may overestimate their abilities to overcome the limitations associated with their disability. However,

the study did not investigate the self-determination factors as potential mediators between transition and self-disclosure.

Cole and Cawthon (2015) conducted a mixed-methods study with 31 undergraduate students with learning disabilities at a four-year university. Their quantitative analysis of differing levels of self-disclosure indicated that those who both registered with disability offices and used accommodations by self-disclosing to instructors had significantly higher levels of self-determination than those who did not disclose. Furthermore, Lam (2015), in their study of college students with disabilities, found that psychological empowerment was both a significant predictor of frequency of self-disclosure and a mediator between disability identity and receiving accommodations for four-year college students.

Disability Identity

Positive disability identity is related to several positive life outcomes for individuals with disabilities (Bogart, 2015; Zapata, 2020). However, few studies analyzing disability identity have adequate sample sizes or discuss the impact of race or gender on disability identity (Forber-Pratt et al., 2017). These factors are critical to explore, given that the intersection of racial and gender identities with disability identity is an important consideration (Dunn, 2015). Furthermore, the study of disability identity has primarily utilized qualitative methods or specific disability-type sample sizes, which do not provide a robust understanding of this phenomenon across disability groups (Forber-Pratt et al., 2017).

Stigma

One construct closely related to whether a student does or does not form a positive disability identity is the stigma surrounding disability (Tafjel, 1981). As has been previously covered in this review, a significant number of students in postsecondary education choose not to disclose their disability status to their institution to seek accommodations (Newman & Madaus 2015; Grimes et al., 2020). Previous studies have hypothesized that stigma may play a significant role in the conscious decision not to disclose (Grimes et al., 2020; Martin, 2010; Lindsay et al., 2018). In their qualitative study, Cole and Cawthon (2015) found that students with disabilities who did not disclose were likely to endorse a negative view of their disability. Clement et al. (2015) conducted a meta-analysis of 144 studies related to stigma and help-seeking. They found that the literature points to self-stigma as a moderate barrier to help-seeking and is related to non-disclosure. Studies further found that individuals with self-stigma typically experience dissonance between their preferred identity and their disability label. Grimes et al. (2020) used data from 993 postsecondary students in Australia who had both disclosed and not disclosed using language related to "learning challenges" rather than disability in a mixed-methods study. They found that 633 of those students had not disclosed to their university, and of those who had not, 28% discussed stigma as a contributing factor.

According to qualitative studies, the presence of stigma in postsecondary education towards disability is also present in the responses of students who do self-disclose for accommodations. In a survey of postsecondary students with non-apparent disabilities, students stated a need to "prove" that they actually had the disability so that they are not believed to be "faking" their disability to seek an unfair

advantage over other students. The authors hypothesized that registration for disability services might provide that proof for students. Students with nonapparent disabilities additionally reported experiences of their disabilities being invalidated or told it was "not a big deal" or having the existence of their disability denied altogether (Thompson-Ebanks and Jarman, 2018).

Transition and Disability Identity

Whether quality transition support influences a more positive disability identity is not a well-studied topic in current literature. Self-determination theory would suggest that forming a positive disability identity is a goal of transition support services (Shogren & Wehmeyer, 2020).

O'Shea and Meyer (2016) conducted a qualitative study with 11 students with disabilities. They described students who had better integrated and accepted their identity as an individual with a disability as having a better understanding of their strengths and weaknesses and being able to elaborate on how they related to their disability articulately. They also described these students as having more goal-directed behaviors related to their disability and exhibited empowered behavior. Furthermore, students in the study described their high school experiences with disability support as integral to forming conceptualizations of their disability and being "formative in their constructions of the meaning of their disability" (p. 11). Furthermore, students noted that positive high school experiences with their disability allowed students to feel "supported and empowered" and thus shaped their understanding and identification as a student with a disability, which led them to seek accommodations in postsecondary school. Finally, students noted the importance of

significant adults in their lives who had provided labels or defined their disability for them and shaped their self-concept related to their disability, which impacted their decision to continue seeking services once they were attending postsecondary school. The researchers labeled the positive experiences in these descriptions as evidence of "collaborative empowerment" (O'Shea & Meyer, 2016, p.12). Despite the small amount of literature on the subject, current research may point to a lack of emphasis on promoting a positive disability identity during college transition and prior experiences with disability services (Penick, 2018).

Disability Identity and Disclosure

Scholars have recognized identity issues as one factor that influences a student's decision to disclose their disability (Penick, 2013; Lam, 2015; Trammel, 2009; Marshak et al, 2010). Furthermore, it is clear from the literature that many students who qualify as having a disability do not in fact identify as having a disability. Newman et al. (2009) found in their nationally representative study that a majority (56.7%) of students who were previously identified as having a disability in high school do not consider themselves to have a disability once they reach postsecondary school. Furthermore, of students who were previously identified as having a learning disability, only 35.5% considered themselves to have a disability. Only 7.8% of students both thought they had a disability and chose not to inform their school of the disability to receive accommodations. Some qualitative studies have additionally noted that students who choose not to disclose but had previously received high school services are often seeking a "new identity", free of a disability,

in college and so delay or avoid seeking services (Thompson-Eubanks, 2018; Lightener et al., 2012).

Cole and Cawthon (2015) conducted a mixed-methods study with 31 undergraduate students with learning disabilities who had both disclosed accommodations and had not disclosed. Students who did not disclose had lower mean scores related to attitudes toward disclosure, self-determination, and actual self-disclosure. They found that many in the no disclosure group reported a negative view of their disability, utilizing words like "excuse," "problem," or "a stigma," and described feeling uncomfortable with the use of accommodations. Furthermore, many in the non-disclosure group reported not disclosing to maintain a "normal" identity and avoid adverse reactions and comments from peers.

Research has found that students diagnosed earlier in life have more advanced self-advocacy skills and are more likely to request accommodations (Troiano, 2003; Lam, 2015). Hahn and Belt (2004) have hypothesized that those who acquire or learn of their disability status earlier in life have more time to integrate their disability with their identity and develop positive beliefs and feelings about disability, which leads to a more positive identity related to disability. Furthermore, Lam (2015) found that age of disability awareness significantly predicted disability identity. Some studies have found that those who have less visible disabilities may attempt to "pass" as not having a disability, therefore being less accepting of their disability identity (Darling, 2003). Penick (2018) explored disability identity using a developmental stage model with 43 undergraduate students and found that being in an advanced identity stage (disability identity acceptance) was positively related to earlier time of disability self-disclosure.

Lam (2015) explored disability identity related to disability registration in a study of 514 postsecondary students who self-identified as having a disability, chronic health issues, or a psychological condition. Lam utilized several factors to explore the construct of disability identity. The factor analysis found that identification, private regard, and public regard were significant factors in the disability identity construct. Of those factors, identification with a disability directly predicted accommodation usage frequency. Private regard indirectly predicted accommodation use frequency through the mediators of psychological empowerment, knowledge of access, and perceived usefulness of accommodations. However, Lam did not explore transition support factors, and they also recruited subjects for the study by targeting those who identify as having a disability. Additionally, Rivas (2013) examined the acceptance of disability and self-disclosure for accommodations with a sample of 172 college students. They found that acceptance of disability was positively related to the behavior of requesting accommodations.

Demographic and Individual Characteristic Factors

Race. Previous data from large, nationally representative studies have shown that White students are more likely to have considered themselves to have a disability and disclose their disability than Black or Latinx students (Newman et al., 2011; Newman & Madaus, 2015).

Gender. Some studies have found that students with disabilities are more likely to be male than female in large samples (Newman & Madaus, 2015).

Parental Educational Attainment. Parental educational level has been shown to significantly predict how frequently undergraduate students access

accommodations (Lam, 2015). Lam (2015) hypothesized that this is due to more highly educated parents being able to obtain more social capital, including access to social networks, education, and cultural knowledge. This capital, in turn impacts how individuals access resources, in this case those individuals have the social and cultural capital necessary to access resources at school via IEP and 504 plans (Trainor, 2008, Lam, 2015).

Summary of the Literature

As noted in previous sections of this review, a large percentage of students with disabilities do not seek out disability services they would likely be eligible to receive in postsecondary education (Newman & Madaus, 2014). Researchers have posited that this could be due to several factors, including not requiring accommodations at the postsecondary level. However, a lack of knowledge and preparation for postsecondary school transition at the high school level is also a contributing factor. Newman et al. (2011) found that when asked more generally about receiving "assistance with schoolwork," 50% of students with disabilities who did not self-disclose for accommodations agreed that it "would have been helpful" for their success in college.

Researchers have also conducted various qualitative studies with students with disabilities attending colleges or universities, exploring students' reasons for disclosing or not disclosing (Thompson-Ebanks & Jarman, 2018; Kranke et al., 2013; Getzel & Thoma, 2008; Lindsay et al., 2018). These studies have found that students often conduct a "cost-benefit analysis" regarding their decision to disclose their disability and receive accommodations. Barriers to disclosure included lack of

awareness and knowledge of services, intermittent need for accommodations, concerns about stigma and discrimination, and difficulties in self-advocacy and self-determination skills. Despite providing these critical insights, the existing qualitative studies have largely had very small sample sizes, making it difficult to generalize the results, and do not allow for further exploration of subgroups such as race, gender, or type of disability. Although there have been quantitative studies on this topic, they fail to recruit large sample sizes of students with different types of disabilities, and many include majority students who are already registered with disability services.

Despite this research's importance, only a small number of quantitative studies have been conducted exploring barriers and predictors of accommodation usage (Lam, 2015; Newman & Madaus, 2015; Newman & Madaus, 2014; Morningstar, 2010; Barnard-Brak et al. 2010). In fact, despite the growing population of students with disabilities in postsecondary education, this remains an understudied area of research (Mullins & Preyde, 2013). While these studies provide valuable information regarding barriers to accommodation, their recruitment and sampling strategies only consider those students already registered with disabilities or yield skewed samples. The studies primarily utilize students already registered with disability services (Morningstar, 2010; Barnard-Brak et al., 2010) or advertise their research as being for students with disabilities rather than using broader language that would account for those who may not identify as having a disability (Lam, 2015). According to Grimes et al. (2020), students with disabilities who do not register for accommodations are considered a "hidden population" who have not been adequately studied.

Self-determination, as conceptualized by Wehmeyer, is “the right and capacity of individuals to exert control over and direct their lives” (Wehmeyer et al., 2004). Studies conducted on self-determination and students with disabilities have tied self-determination skills to increased college success (Jameson, 2007). However, the research on self-determination and self-disclosure for accommodations is mixed. Some studies have found no significant relation between self-determination factors and self-disclosing for accommodations (Newman & Madaus, 2015), while others have found some self-determination factors do predict accommodation usage (Lam, 2015). Notably, Newman and Madaus (2015) utilized a shortened version of Wehmeyer’s ARC scales (1995) and did not investigate self-determination factors as a potential mediator between transition and self-disclosure. Given these disparate findings, and the emphasis on self-determination instruction to promote self-advocacy in postsecondary school (Newman & Madaus, 2015), more investigation of this topic is warranted.

For students with disabilities, an important goal of transition support is to improve self-determination skills (Morningstar et al., 2010; Shogren & Wehmeyer, 2020). One study has determined that quality transition support predicted self-determination skills in college students (Eddy, 2010). Morningstar et al. (2010) additionally found that quality transition support correlated with self-determination factors, particularly psychological empowerment. Furthermore, in large, longitudinal studies of high school students with disabilities transitioning to college using the NLTS-2 dataset (Newman et al., 2016; Newman & Madaus, 2015), the presence of transition services in high school based on student records predicted self-disclosure

for accommodations in postsecondary education but only for students at two-year institutions. However, both studies did not investigate the quality of transition support, but whether the students had received any transition support and whether their plan included a list of accommodations for postsecondary education.

Given that Newman and Madaus (2015) found that 65% of students who had a disability categorization in high school did not identify as a student with a disability in college, disability identity will be an important factor to explore as it relates to self-disclosing for accommodations. Disability identity is a very important factor for self-disclosure since students must identify themselves as a student with a disability to receive accommodation services (Lam, 2015). According to Social Identity Theory (Tafjel, 1981) people from marginalized groups may cope with a negatively valued status by employing several strategies including detaching themselves from that stigmatized group psychologically. Furthermore, disability identity is "activated" when individuals interact with others related to their disability, such as interacting with disability services staff and instructors (Dunn, 2015). Prior studies have found that a more positive disability identity predicts self-disclosure for accommodations in college students (Penick, 2018; Lam, 2015; Rivas, 2013). Therefore, disability identity should be further investigated as a predictor of self-disclosure, a potential outcome of quality transition supports, and as a potential mediator between quality transition supports and self-disclosure and attitudes towards accommodation usage.

Research Questions and Hypotheses

The study will seek to answer the following research questions using quantitative methods:

Research Question 1. Do self-determination factors (psychological empowerment and self-realization), quality of transition support (during high school), and disability identity predict attitudes toward requesting accommodations and/or disability self-disclosure?

Hypothesis 1.1. The hypothesis was that, based on previous studies, quality of transition support, and disability identity would predict more positive attitudes toward requesting accommodations and self-disclosure. Self-determination factors have been mixed in terms of their relationship to self-disclosure in previous studies. Self-determination measures were found to be positively related to self-disclosure in some students (Eddy, 2010; Lam, 2015). However, they did not significantly predict self-disclosure in a nationally representative longitudinal study (Newman & Madaus, 2015). Given the current emphasis on self-determination for students with IEPs and 504 plans in high school transition, I hypothesized that these factors (psychological empowerment and self-realization) would be significant predictors.

Figure 2

Regression Model for Research Question 1 with Registering for Accommodations as Dependent Variable

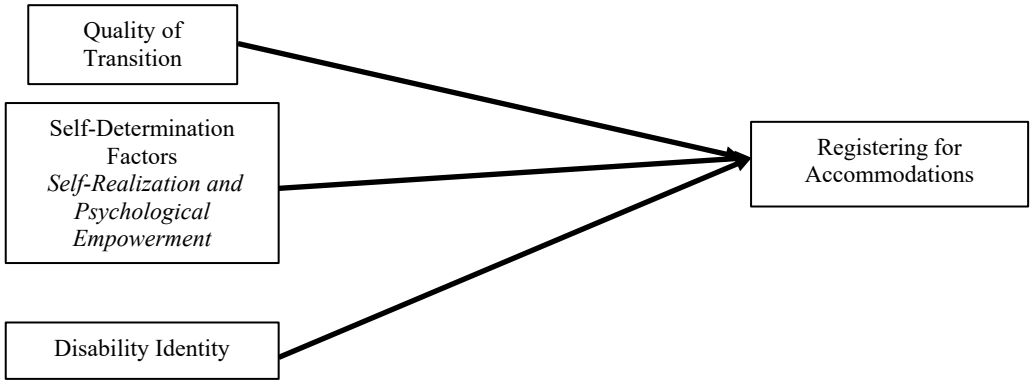
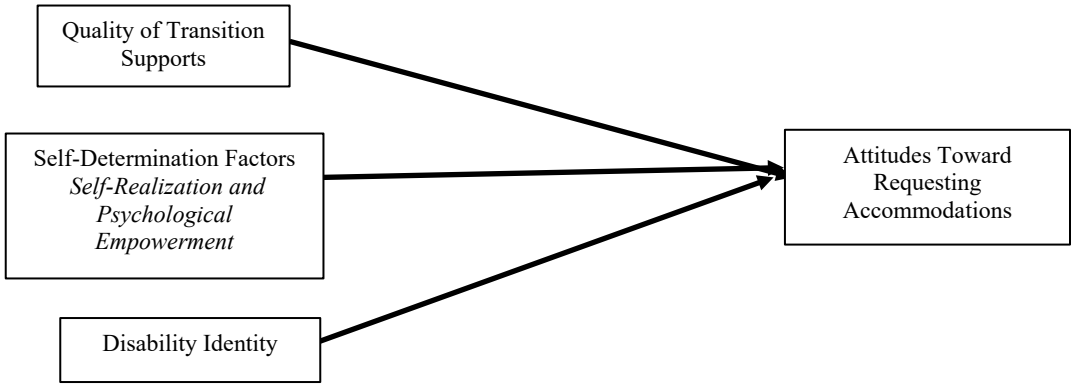


Figure 3

Regression Model for Research Question 1 with Attitudes Toward Requesting Accommodations as Dependent Variable



Research Question 2. Does the quality of secondary-postsecondary transition support predict disability identity or self-determination factors (psychological empowerment and self-realization)?

Hypothesis 2.1. The hypothesis was that quality of transition support would predict both self-determination factors (psychological empowerment and self-

realization). One study has determined that quality transition support predicted self-determination skills in college students (Eddy, 2010). Morningstar et al. (2010) additionally found that high-quality quality transition support correlated with self-determination factors (self-realization and psychological empowerment).

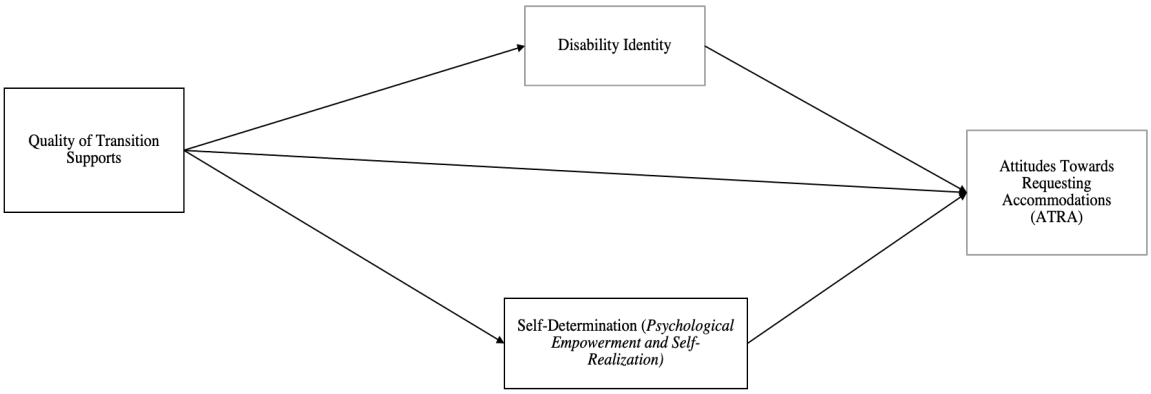
Hypothesis 2.2. I additionally hypothesized that quality of transition support would predict disability identity based on Social Identity Theory (Tafjel, 2018). Furthermore, O'Shea and Meyer (2016) found that students described previous positive experiences with adults and others around disability and postsecondary preparation (such as in quality transition support) influenced their conceptualization of their disability identity.

Research Question 3. Do disability identity or self-determination factors (psychological empowerment and self-realization) mediate relations between quality of transition support and attitudes towards requesting accommodations?

Hypothesis 3: I hypothesized that a positive disability identity and self-determination factors (self-realization and psychological empowerment) would mediate the relations between quality transition support and attitudes toward requesting accommodations.

Figure 4

Hypothesized Model Predicting Attitudes Toward Requesting Accommodations



Chapter 3: Methods

Participants and Inclusion Criteria

Participants (*N*= 285) were current undergraduate students at two universities in the mid-Atlantic of the United States, the University of Maryland, College Park, and the University of Maryland, Baltimore County. The universities have proportionally similar race and gender demographics within their undergraduate student populations and a similar proportion of students receive financial aid (IRIS, 2022). Participants were recruited via email listservs and the following inclusion criteria was used in recruiting and screening participants:

Undergraduate Students

Participants were recruited via university student listservs or other university-based programs (e.g., Sona Systems) to ensure they were active university students. The listservs targeted current undergraduate students at the universities. Study inclusion criteria stated they should be undergraduate students who were at least 18 years old. Participants were screened to ensure they were 18 years old because I focused on young adults in this study.

Students with Nonapparent Disabilities

Data were collected from undergraduate students who self-identified as having a diagnosis, disorder, or disability. Participants were asked the question: "Do you have a diagnosis, disability, or learning difference that impacts your learning or access to your education?" and were excluded if their answer was no. This question was designed to screen for individuals who would qualify as a student with a disability but also includes those who may not readily identify as having a disability.

The phrase, “that impacts your learning” has been used in other studies to differentiate those who would likely qualify for disability services (Grimes et al., 2020). Students who had not registered with disability services were also asked how helpful they felt accommodations would be for them. Only 12 participants thought that accommodations would be “not at all” helpful. Given that these participants also endorsed that they had previously used accommodations and the recruitment language targeted those with disabilities that “impacted their learning”, they were retained in the study. The recruitment materials were targeted for individuals with invisible or nonapparent disabilities. Qualified individuals include those with learning disabilities, neurodevelopmental disabilities, ADHD, psychological disabilities, and chronic/ medical disabilities. Those with nonapparent disabilities differ from those with visible disabilities in that they are required to undergo a process of “coming out” as an individual with a disability and are more likely to have difficulty with self-disclosure. Participants were also asked to identify the disability they identified with and the primary disability that impacted their learning and whether it was visible to others. However, the question asking whether their disability was visible to others was not used to exclude participants given that answers to the question could vary based on interpretation and exclude those who would be considered an individual with an invisible disability.

Students Who Have Attended At Least One Semester of College

Participants were asked the question, “Have you attended at least 1 semester of college/ university?” and were excluded if they answered “no.” This question was included because of the dependent variable being use of accommodations in college.

Since students typically register the summer prior to their first semester or at the beginning of their first semester, those who have not yet attended for that long may be currently intending to register or have a standing appointment to register during their first semester.

Students Who Received Accommodations in High School

Participants were asked: "Did you have an Individualized Education Plan (IEP) or 504 plan in high school?" Participants were excluded if they answered "no." This criterion was included for two reasons. First, if a student was qualified as a student with an IEP or 504 plan in high school, they were deemed to be a student with a disability that impacted their learning, such that they required accommodations and/or special education. Second, both IEPs and 504 plans include the use of accommodations, which are what is provided by colleges and universities when students register with disability services. Therefore, meeting these criteria indicates that a student has been determined by qualified professionals to have a disability, and required modifications and/or accommodations during high school.

Procedures

This study was approved by the University of Maryland Institutional Review Board (IRB). This study utilized a quantitative, cross-sectional research design to explore the impact of various factors on students' decisions to disclose their disability and use accommodations (i.e., disability self-disclosure) during postsecondary education. Participants were recruited at two universities located in the mid-Atlantic region of the United States and asked to take an online survey. Participants were primarily recruited via listservs of students obtained from the registrar's office that

targeted the general undergraduate student body. Recruitment messages were also sent over a listserv targeted to students who were registered to the disability office at one of the universities. For these listservs, it was advertised that students who met inclusion criteria and completed the survey would be eligible to enter a raffle for a $25 Amazon gift card. In total, 1,538 participants recruited this way completed the screening part of the survey, and 278 were screened in and completed the entire survey. Participants were also recruited at one university as part of Sona Systems to earn research credits for undergraduate psychology classes. From that method of recruitment, 163 participants took the initial screening and of them, 38 participants screened in, completed the entire survey, and were granted credit.

Following the initial screening questions, if they met established inclusion criteria, participants were directed to a consent form and asked whether they wanted to provide their consent and proceed with the survey. They were able to exit the questionnaire at any time. All data were de-identified and based on self-report and all appropriate measures were taken to ensure the confidentiality of participants' data. Overall, only 378 of the 1,816 recruited participants passed the inclusion criteria questions and consented to the study. The small number of students who consented compared to those who attempted to take the survey was due to stringent inclusion criteria that disqualified a large percentage of potential participants. The inclusion criteria questions asked whether students were 18 years or older, have a disability, diagnosis, or learning difference, whether they had an IEP or 504 plan in high school, and whether they had used accommodations in high school. If they did not respond "yes" to these questions, they were directed to the end of the survey and informed that

they did not meet criteria for the study. Furthermore, 25 participants were removed for not passing a validity check question in the survey which asked participants to select a certain answer. Eight participants were removed because they indicated that they were graduate students. Other participants were removed for not fully completing the survey. In total, 285 participants screened in, consented, and completed the survey.

Participants

A total of 285 participants met the criteria for this study, consented, and completed all survey measures. Of the participants that were included in the study, 65.5% (*n*= 186) identified as female. The average age of respondents was 20.53 (SD= 2.66). Participants were generally evenly distributed among grade levels. 23.1% were freshman students, 21.8% were sophomores, 23.5% were juniors, and 22.1% were seniors. The sample was largely White or European American (67.6%), followed by Asian or Asian American (11.3%), Black or African American (6.7%), Latinx, Chicanx, or Hispanic (6.7%) or Bi-racial/multi-racial (5.6%).

Measures

The following surveys were included in this study: scales measuring disability identity, self-determination factors, and quality of high school transition. Furthermore, demographic variables such as age, gender, race, year in school, parental years of education, disability type, and registration with disability services were collected. Finally, survey items captured whether students had or used accommodations or special education services in high school due to their identified disability or were aware of having a 504 plan or IEP in high school. The questions

pertaining to the following variables were adapted from several scales as well as previous studies of disability identity, self-determination, and transition quality (Lam et al., 2015; Morningstar et al., 2010; National Center for Special Education Research, 2009). Questions from some sources were slightly modified if they were determined to be unclear by pilot testing with two students with disabilities. Screener items to determine that participants met inclusion criteria were placed at the beginning of the survey and ineligible respondents were screened out without completing the survey.

Registering for Accommodations. Disability self-disclosure was a dichotomous variable measured by students' self-report of whether they had self-disclosed to the disability service at their university to register for accommodations. Participants responded "yes" or "no" to the question "Have you registered with your college/university to receive accommodations for your [inserted Primary Disability]?"

Quality of High School Transition Preparation Survey (Morningstar et al., 2010; adapted by Ramsdell, 2014). The scale was first developed by Morningstar et al. (2010) and was adapted into a Likert scale by Ramsdell et al. (2014) and was further slightly adapted in this study for clarity and consistency. The scale originally consisted of 26 items which participants will answer on a 5-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"). The scale measures students' perceptions of the quality of their high school transition programming including in domains of their family's aid in preparing them for adulthood and postsecondary school, and their school's programming in terms of preparing them with self-determination skills and postsecondary-specific preparation. Therefore, the scale

measures not only "official" transition services provided to students with disabilities, but also informal transition support and services such as opportunities to use self-determination skills. The included subscales measure family support of transition (e.g., "My family and I participated in activities to help prepare me for college such as visiting college campuses and helping me complete college applications"), school support of self-advocacy (e.g., "Teachers encouraged and instructed me on how to speak up for myself both in high school and outside of school"), and school instruction of college skills (e.g., "My school provided helpful preparation for my transition to college"). The scales have been found to maintain good internal consistency in that study, ranging from .76 to .95 (Ramsdell, 2014). Some scale items were slightly adapted in the study for language clarity and items were removed that were specifically related to work preparation rather than postsecondary education. While the scale initially included items measuring involvement in IEP/ 504 (e.g., "My input was listened to by the IEP/504 team"), these items were not used in analysis because only 61.9% of participants reported that they had attended their IEP or 504 meetings. Furthermore, two items were added specifically asking if family or school specifically discussed seeking accommodations in college. Altogether, 19 items were used in the final scale. In this study, Cronbach's alpha was found to be α=.913.

Personal Disability Identity Scale (Hahn & Belt, 2004). Disability identity was measured via an 8-item scale called the Disability Personal Identity Scale (Hanh & Belt, 2004). The scale has 4 items that measure affirmation of disability (e.g., "I feel proud to be a person with a disability") and 4 that measure denial of disability (e.g., "My disability sometimes makes me feel ashamed"). Responses for both factors

were reported on a 5-point Likert-type scale from 1 (“strongly disagree”) to 5 (“strongly agree”). Based on earlier studies, the reliability and validity of the scale are well regarded (Bogart, 2015), and the measure is considered the most widely used measure of disability identity (Forber-Pratt et al., 2017). The full measure was found to have good internal consistency of α=.80 in recent studies (Zapata, 2018). In this study the Cronbach's alpha for the scale was found to be α=.871.

The Arc's Self-Determination Scale (Wehmeyer, 1995). Wehmeyer and Kelchner (1995) originally designed the Arc’s Self-Determination Scale to measure the four characteristics of self-determined behaviors (e.g., self-realization, psychological empowerment, self-regulation, and autonomy) in various general life contexts (i.e., social life, academics, and employment). Two of the measures, psychological empowerment and self-realization, were used in this study. These domains of self-determination were chosen for this study specifically due to the importance of these domains to transition and postsecondary success (Getzel & Thoma, 2008; Jameson, 2007; Thoma & Getzel, 2005). The scales have been normed on students with disabilities (Wehmeyer et al., 2014) and have been widely used with this population (Wehmeyer & Kelchner, 1995). Previous studies have utilized these measures with college students, using either one or both measures in their complete form (Lam, 2015; Morningstar et al., 2010) or using abbreviated versions of the measures (Newman et al., 2016; Newman & Madaus, 2015). The psychological empowerment domain consists of 7 items asking students to choose which best describes them. Answers that reflect psychological empowerment (e.g., beliefs in ability, perceptions of control, and expectations of success) are scored with a 1 (e.g.,

"I will be able to make choices that are important to me."). The self-realization scale measures individual self- knowledge and self-awareness with 6 items (e.g., "I know what I do best"). Answers are scored with either 0 or 1 points based on the direction of the answer. Answers reflecting a positive self-awareness and self-knowledge are scored with a 1 and answers that do not are scored with a 0. Therefore, higher scores indicate greater levels of self-realization and psychological empowerment. In this study the self-realization scale had an internal consistency of α=.651 and the psychological empowerment scale had an internal consistency of α=.622.

Attitude Toward Requesting Accommodations scale (the ATRA scale; Barnard-Brak, et al., 2010). The ATRA scale is a 31-item scale with a Likert-type scale response format constructed to measure students' attitudes toward requesting accommodations with disability services in college. It consists of four subscales regarding student attitudes toward accommodations: academic integrity, disability disclosure, disability acceptance, and the accommodations process. Some items were slightly re-worded to account for institutional differences (e.g., disability services office versus "Student Disability Services"). The academic integrity scale captures attitudes towards the fairness of accommodations usage and how comfortable students feel claiming a need for accommodations (e.g "Accommodations are unfair to other students"). The disability disclosure scale captures attitudes about talking about their disability or others knowing about the disability (e.g., "I don't want professors to know that I have a disability"). The disability acceptance scale captures participants' attitudes or others' perceived attitudes toward their disability in the context of requiring accommodations (e.g., "I don't think I am disabled enough to

need accommodations"). Finally, the accommodations process scale captures perceived barriers to accommodation use including lack of knowledge or negative attitudes towards discussing accommodations (e.g., "I didn't know anything about disability accommodations when I started college"). The Likert responses range from 1 (strongly agree) to 5 (strongly disagree). Items were recoded post-administration for analysis so that higher total scale scores on this scale indicate more positive attitudes toward requesting accommodations. The scale has an internal consistency of α=.921 (Barnard-Brak et al., 2010). In this study, the internal consistency was α=.868.

Analytic Procedure

Preliminary analyses (descriptive statistics, correlations, and preliminary reliability analyses) were conducted using IBM SPSS Statistics Version 28. Pathway analyses were conducted using Mplus Version 8.0 (Muthen & Muthen, 2017). Descriptive statistics are reported for all variables in this study (See Tables 1-7). Initial data checking assessed the presence of variable normality, multivariate outliers, and linearity. The assumptions of residual normality, linearity, and homoscedasticity were tested by examining each variable's residual scatterplot. Finally, tolerance values and predictor correlations were utilized to identify whether multicollinearity existed in the dataset. Predictors were mean centered to reduce multicollinearity. All analyses controlled for age, gender, parental education, and primary disability.

Regression

Binary logistic regression and multiple regression were utilized to test research question one and for exploratory analysis with quality of transition factors.

The dependent variable in the logistic regression analysis was whether students had registered for accommodations (i.e., students' disability self-disclosure for accommodations). The independent variables included self-determination factors (psychological empowerment and self-realization), disability identity, attitudes toward requesting accommodations, and quality of high school transition. Logistic regression analysis has been conducted by other researchers investigating similar research questions (Newman & Madaus, 2015). Additionally, a multiple regression analysis was conducted to measure the impact of transition quality, self-determination factors (psychological empowerment and self-realization), and disability identity on attitudes toward requesting accommodations (ATRA).

Path Analyses

To answer research question two and question three, path analyses using a full information likelihood on Mplus 7.4 (Muthen & Muthen, 2017) with 1000 bootstraps were conducted. In the models, fit indices were examined to evaluate model fit, including Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), and Standardized Root Mean Squared Residual (SRMR). Model fit was assessed via cut off values specified in previous literature (*CFI* >.95, *RMSEA* < .065, and *SRMR* < .085; Hancock & Mueller, 2013; Hu & Bentler, 1999; Kline, 2005). The path or indirect effect was considered significant if the 95% bootstrap confidence interval (CI) did not contain zero and the *p* value was <.05.

Chapter 4: Results

Descriptive Results

A total of 285 students completed all survey measures and were included in the study. The sample reported high levels of parental education; 33.7% of participants reported that their mothers had graduated from college and 40.2% of participants reported their mothers had completed graduate school. Additionally, 28.3% of participants reported that their fathers had graduated from college and 44.8% reported that they had completed graduate school.

Participants most frequently identified ADHD as the diagnosis or disability that most impacts their learning (i.e., their primary disability), with 39.4% of the participants selecting this as their primary disability. Participants also identified as having a psychological diagnosis (25.7%), learning disability (11.6%), and chronic health impairment (10.9%) at relatively high rates.

Regarding accommodations, 67.6% of the participants had registered with their college or university to receive accommodations. Of the 97 participants (33%) who had not registered with disability services, 88.6% of those participants felt that accommodations would be at least somewhat beneficial for them. Most participants who had registered did so either before their first semester began (53.1%) or during their first semester (31.1%).

Individuals were asked whether they identified as an individual with a disability. In the sample, 54.4% of the participants identified as an individual with a disability. This means that 45.6% of the participants did not identify as an individual with a disability. This number is lower than in previous studies, such as in Newman

& Madaus (2014) which found that a majority (56.7%) of students who were previously identified as having a disability in high school do not consider themselves to have a disability once they reach postsecondary school.

Of the participants in the study, 57.7% of students reported having a 504 plan in high school. Participants were asked whether they attended their IEP/504 meetings while in high school and 61.9% said they had attended, 22.8% said they had not, and 15.3% were unsure. Of students with IEPs, 67.7% identified as a student with a disability, while 53.0% of students with 504 plans identified as a student with a disability.

I ran additional analyses to identify the overlaps in students who did or did not register for accommodations and their identification as an individual with a disability. Of participants who were registered for accommodations (n=192), 63.2% of them also identified as an individual with a disability, but 37.5% did not identify as having a disability. Of participants who were not registered for accommodations (n=93), 62.4% of them did not identify as having a disability, but 37.6% of them did identify as having a disability. The differences in registration by disability identification were found to be significant (χ^2 (1, N=285) = 16.35, p< .001).

A series of independent sample t-tests examined differences between participants who had and had not registered for accommodations (i.e., self-disclosed for accommodations). Participants who had self-disclosed reported significantly more combined years of parental education ($M_{difference}$ = -1.63, t (282) = -2.57, p=.011), higher quality of transition support ($M_{difference}$ = -5.25, t (282) = -2.96, p=.004) and more positive attitudes towards requesting accommodations (ATRA; $M_{difference}$ = -

15.29, t (282) = -8.94, p<.001). There were no significant differences found between their reported disability identity, self-realization, psychological empowerment, age, or age of awareness disability.

Additionally, a series of independent sample t-tests examined differences between participants who do identify and do not identify as an individual with a disability. Participants who did identify as being an individual with a disability had significantly higher positive disability identity ($M_{difference}$ = -2.77, t (281) = -3.32, p<.001), had more positive attitudes towards requesting accommodations ($M_{difference}$ = -6.35, t (281) = -3.59, p<.001), and were also slightly older than those who did not identify ($M_{difference}$ = -.69, t (281) = -2.55, p=.011). There were not significant differences found for years of parental education, self-realization, psychological empowerment, quality of transition, or age of disability awareness. There were no significant mean differences between genders for all variables of interest.

A series of independent t-tests examined differences between participants who had had an IEP versus a 504 in high school. The only significant differences found was that students who reported having IEPs were slightly older ($M_{difference}$ = .738, t (227) = 2.29, p=.023) and were aware of their disability before those with 504 plans ($M_{difference}$ = .703, t (227) = -2.27, p=.024).

A one-way ANOVA was performed to compare the effect of primary disability (i.e., ADHD, psychological disabilities, learning disabilities, and chronic health impairments) on variables of interest. Results revealed that there were statistically significant differences in mean scores between at least two primary disability groups for attitudes towards requesting accommodations (F (3, 285)= 5.84,

$p<.001$), self-realization (F (3, 285)= 8.78, $p<.001$), psychological empowerment (F (3, 285)=7.91, $p<.001$), disability identity (F (3, 285)= 6.47, $p<.001$), and quality of transition (F (3, 285)=4.01, $p=.007$). Tukey's HSD test for multiple comparisons revealed that participants who identified psychological disability as their primary disability had significantly lower mean scores compared to those with ADHD, learning disabilities, and chronic illness on measures of attitudes toward requesting accommodations, self-realization, psychological empowerment, and disability identity, but only significantly lower compared to those with learning disabilities for quality of transition (Table 7).

Exploring Predictors of Self-Disclosure Attitudes and Behaviors

Multiple Regression

A multiple regression was run to determine whether self-realization, psychological empowerment, transition support, and disability identity predicted attitudes toward requesting accommodations (ATRA; Table 10). ATRA scale data was found to meet the assumption of normality and data were normally distributed according to the Shapiro-Wilk test of normality ($p=.157$). Scale variables (self-realization, psychological empowerment, quality of transition, and disability identity) were also centered to reduce any influence of multicollinearity and for ease of interpretation. All other assumptions of normality, linearity, and homoscedasticity appeared to be met. Additionally, an analysis was run to explore interaction effects between predictor variables (self-realization, psychological empowerment, quality of transition, and disability identity). No significant interactions effects were found.

I used self-realization, psychological empowerment, quality of transition support, and disability identity as predictors for attitudes toward requesting accommodations in the regression model (Table 10). Age, level of parental education, race, primary disability (ADHD vs. other disabilities), and gender (female vs. other identified genders) were controlled for in the model. Categorical variables (gender, race, and primary disability) were dummy coded for ease of interpretation. ADHD was used as the reference group for primary disability because the largest percentage of participants (39.4%) selected it as their primary disability. The model overall was found to be significant ($R^2 = .304$, F (8, 285) = 14.83, $p < .001$). Disability identity (β =.432, t (285) = 7.20, p <.001) and quality transition support (β =.170, t (285) = 2.87, p =.004) significantly predicted positive attitudes towards requesting accommodations. The self-determination variables (self-realization and psychological empowerment) were not found to significantly predict attitudes toward requesting accommodations.

Logistic Regression

A hierarchical binary logistic regression was run to determine if attitudes toward requesting accommodations, psychological empowerment, self-realization, quality of transition support, and disability identity were associated with students registering for accommodations (Table 8). Registering for accommodations was captured as a dichotomous variable, with respondents answering “yes” or “no” as to whether they had registered with disability services for accommodations. Age, gender, race, primary disability, and parental education were also retained in the model as control variables and the categorical variables were dummy-coded.

Analyses suggested that data met the assumptions of binary logistic regression. Lack of multicollinearity was met via collinearity tolerance values >0.1 and Pearson correlations values. An inspection of standardized residual values revealed one significant outlier (Std. residual= -2.74), which was deleted from the data for analysis.

A two-stage hierarchical logistical regression was conducted with registering for accommodations as the dependent variable (Table 8). At stage one, psychological empowerment, self-realization, quality of transition support, and disability identity were included in the model along with control variables (gender, age, parent education, and primary disability). The stage one model was statistically significant (χ^2 (9, N=284) = 35.848, p< .001), suggesting that it could distinguish between participants who had and had not registered with disability services for accommodations better than the intercept-only model. The Hosmer and Lemeshow test for goodness of fit was conducted and was not significant (p >.5) indicating that the model fit was sufficient. The overall classification accuracy of the model was 71.3%. As shown in Table 8 quality of transition (B=.023, exp(β)=1.024, p= .042) and disability identity were significant predictors for registering with disability services (B=1.203, exp(β)=3.330, p< .001).

At stage two, attitudes toward requesting accommodations was added to the model as an additional predictor. The model was statistically significant (χ^2 (9, N=284) = 85.481, p< .001) indicating a significant improvement in fit relative to an intercept-only model. The Hosmer and Lemeshow test for goodness of fit was conducted and was not significant (p >.5) indicating that the model fit was sufficient. Furthermore, the fit of the stage two model, including the attitudes toward requesting

accommodations predictor, significantly improved compared to the stage one model (χ^2 (1, *N*=284) = 49.633, *p*< .001). Adding the attitudes toward requesting accommodations variable also improved the classification accuracy of the model (80.1%).

As shown in Table 8 both disability identity (B=.839, exp(B)=2.313, *p*= .007) and attitudes toward requesting accommodations (B=.08, exp(B)=1.083, *p*< .001) were significant predictors for registering for accommodation in the model. However, the quality of transition support variable was no longer significant. Therefore, quality of transition no longer had a direct effect on registering for accommodations when attitudes towards requesting accommodations was included in the model. Given that quality of transition was a significant predictor of attitudes towards accommodations in the previous multiple regression (Table 10), there may be a suppressor effect occurring due to the addition of the attitudes towards requesting accommodations variable. Neither self-determination factor was found to be significant in the logistic regression models.

Additionally, the results indicated that of the demographic variables (age, gender, disability type, race, and parental education), only parental education had a significant impact on disability self-disclosure (B=.016, exp(B)=1.016, *p*=.01) when all other factors were held constant. For each year of parental education, a student's odds of registering for accommodations increased by 17.9% (95% CI [1.04, 1.34].

Path Analysis

To test question 2 and question 3, path analyses using full information likelihood on Mplus 7.4 (Muthen & Muthen, 2017) with 1000 bootstraps were

conducted. Age, gender, primary disability, and parental education were included in both models as control variables.

Model 1: Examining the Relationship Between Quality of Transition and Attitudes Toward Requesting Accommodations

I first ran a model (see Figure 5) to determine the influence of quality of transition support on ATRA and registering for accommodations via three mediators (self-realization, psychological empowerment, and positive disability identity). The fit of the model was acceptable (χ^2=30.65, *df* = 15, *CFI* = .96, *RMSEA* = .061, *SRMR* = .045).

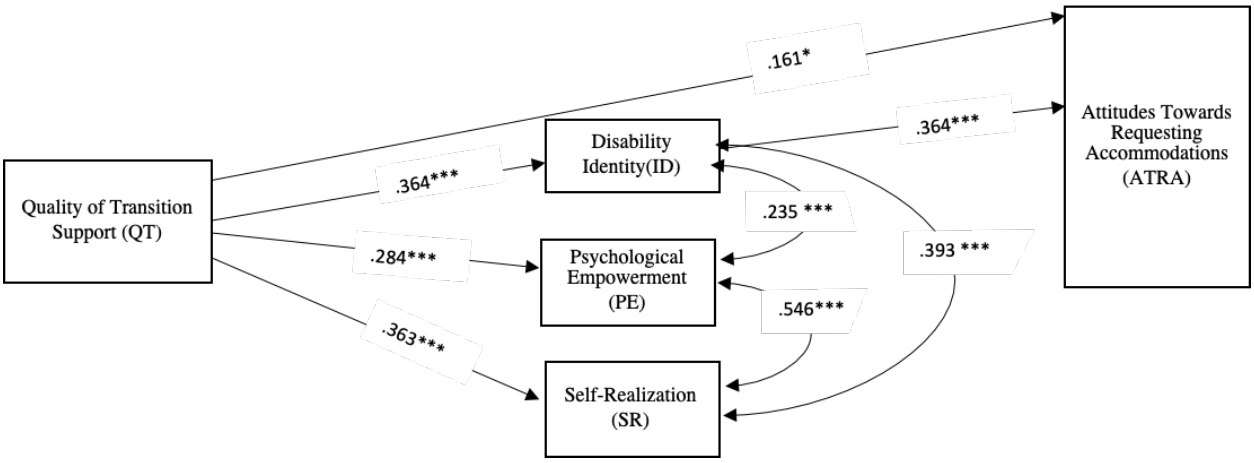
Quality of transition support positively predicted the three mediators: self-realization (β=.363, *p*<.001, 95% CI [.260, .466]), psychological empowerment, (β=.284, *p*<.001, 95% CI [.167, .401]), and positive disability identity (β=.364, *p*<.001, 95% CI [.265, .462]). Quality of transition support also positively predicted attitudes towards requesting accommodations (β=.161, *p*=.01, 95% CI [.039, .287]). Positive disability identity was found to positively predict attitudes toward requesting accommodations (β=.364, *p*<.001, 95% CI [.305, .523]), but neither of the self-determination factors (self-realization or psychological empowerment) predicted attitudes towards requesting accommodations.

Mediation. Quality of transition support was associated with attitudes toward requesting accommodations via disability identity (See Figure 5). In other words, quality of transition support had indirect effects on attitudes toward requesting accommodations via disability identity (Indirect effect= .151, *p*<.001, 95% CI [.096, .225]).

In sum, higher quality transition practices predicted more positive disability identity, higher psychological empowerment, and higher self-realization. The more positive disability identity a student reported, the more likely they were to have more positive attitudes towards requesting accommodations.

Figure 5

Model 1: Effects of Quality of Transition Support on Attitudes Toward Requesting Accommodations



Note. * $p < .05$, ** $p < .01$, *** $p < .001$.
Age, gender, parent education, and primary disability included in the model as control variables

Model 2: Exploring Different Transition Factors

To explore the impact of different components of quality of transition, I conducted an exploratory factor analysis. Following factor analysis, the factors were used as predictors in the model to explore the relations between different transition factors, and attitudes toward requesting accommodations with the same proposed

mediators (self-realization, psychological empowerment, and positive disability identity) as model 1.

Exploratory Factor Analysis of Transition Factors. Principle components analysis was conducted on the Quality of High School Transition Preparation measure items using SPSS to identify subscales of the measure. Prior to conducting the analysis, the data were assessed for suitability to conduct the factor analysis. The Kaiser-Meyer-Oklin value was .89 and Bartlett's Test of Sphericity reached significance ($p < .001$) indicating that factors could be obtained from the scale. A principal axis factor analysis using oblimin rotations was conducted. Based on cutoff eigenvalues greater than 1, the analysis resulted in three factors explaining 38.95%, 11.66%, and 7.24% of the variance in the scale respectively. The three factors included 9 items measuring School-based Support of Transition and Self-Advocacy ("School Support"; α=.88), 6 items measuring Home-based Support of Transition and Self-Advocacy ("Home Support"; α=.85), and 4 items measuring Discussion of Help-seeking for College Accommodations, both at home and at school ("Discussions about Disability Services"; α=.77). The school support and home support factors were also found in previous research with the scale (Ramsdell, 2014), however, an additional factor specific to discussions about disability services was found in this study via factor analysis and an additional variable regarding college preparation skills loaded onto the school support factor in my analysis.

Logistic Regression. First, a binary logistic regression was run to determine which of the factors three subscales of the quality of transition support measure (i.e., school-based support of transition and self-advocacy, home-based support of

transition and self-advocacy, and discussion of help-seeking for college accommodations) contributed to the odds of a student registering with disability services for accommodations (Table 9). The variables were mean centered to reduce multicollinearity and the previously used demographic variables were also included as controls in the model. The model was statistically significant χ^2 (8, N=284) = 41.49, p<.001. The Hosmer and Lemeshow test for goodness of fit was conducted and was not significant (p >.5) indicating that the model fit was sufficient. As shown in Table 9 the only transition factor that was found to be statistically significant within the model was discussion of help-seeking for accommodations (B=.173, exp(B)=1.19, p<.001).

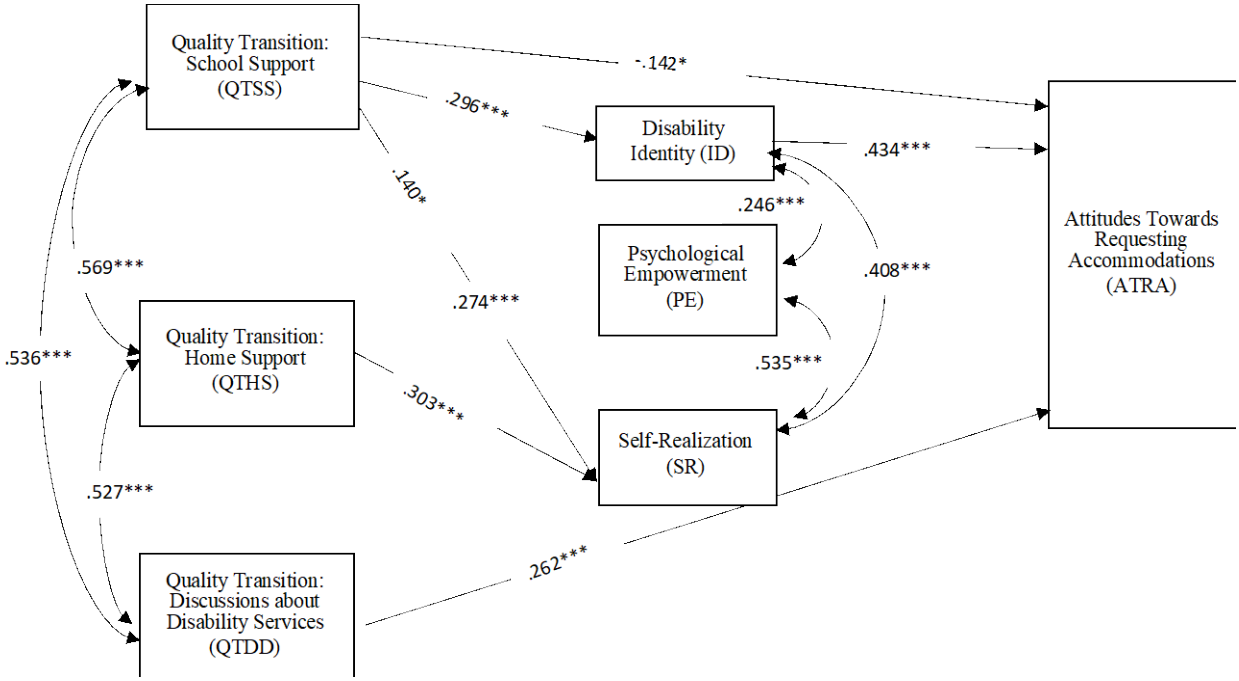
Path Analysis. The second model (see Figure 6) was run to determine the impact of different quality of transition factors (i.e., school support, home support, and discussions about disability services) as predictors within the mediation model. The fit indexes of the measurement model met acceptable cut off criteria (χ^2=30.13, df = 15, CFI = .96, $RMSEA$ = .06, $SRMR$ = .038).

In this model, school support predicted positive disability identity (β=.296, p<.001, 95% CI [.149, .437]) and self-realization (β=.140, p=.04, 95% CI [006, .274]). Home support predicted psychological empowerment (β=.274, p<.001, 95% CI [.123, .425]) and self-realization (β=.303, p<.001, 95% CI [.147, .460]). Discussions about disability services did not predict any of the mediators, but directly predicted attitudes toward requesting accommodations (β=.262, p<.001, 95% CI [.128, .396]). Disability identity positively predicted attitudes toward requesting accommodations (β=.426, p<.001, 95% CI [.325, .543]).

Mediation. School support was associated with attitudes towards accommodations via disability identity (Indirect effect= .129, p=.001, 95% CI [.101, .405]). However, the direct effect between school support and attitudes towards requesting accommodations was significant but negative (β=-.142, p=.04, 95% CI [-.548, -.012]). The negative relation between school support and attitudes toward requesting accommodations may be the result of a suppressor effect, meaning that the relationship between school support and attitudes towards requesting accommodations became more negative due to the influence of additional variables.

Figure 6

Model 2: Effects of Quality of Transition Support Facts (School Support, Home Support, and Discussions about Disability Services) on Attitudes Toward Requesting Accommodations



Note. * $p < .05$, ** $p < .01$, *** $p < .001$.
Age, gender, parent education, and primary disability included in the model as control variables

Chapter 5: Discussion

The overall goal of this study was to understand the factors that facilitate disability self-disclosure for college students with nonapparent disabilities. This study endeavored to build upon prior research to explore disability identity, self-determination, and quality of transition support as predictors of student disclosure of disability status. Most quantitative studies investigating factors that predict self-disclosure and registering for accommodations have used a sample already registered with disability support offices (Barnard-Brak et al., 2009) or do not include a significant amount of both registered and non-registered participants (Lam, 2015; Morningstar, 2010). Previous studies, therefore, utilize a sample skewed toward those who are already registered and have self-disclosed (Penick et al., 2018; Morningstar et al., 2010; Forber-Pratt et al., 2017). In other words, prior literature addresses the 35% of students who identify as individuals with a disability but not the 65% of students in postsecondary education who do not (Newman & Madaus, 2014). To explore these questions and to fill the gap in the literature, I recruited 285 college students with nonapparent disabilities who had received services and accommodations via a 504 plan or IEP in high school. Participants complete an online survey on factors including their attitudes towards requesting accommodations, disability identity, transition quality, and self-determination. Using more inclusive recruiting language, my study captured both participants who had and had not registered for accommodations. In this study, 67.6% of the participants had registered with their college or university to receive accommodations, and 33.4% had not registered for accommodations.

The study results indicate that high-quality transition experiences for high school students with nonapparent disabilities play an important role in instilling self-determination and a positive sense of disability identity. A positive disability identity, in turn, predicted seeking accommodation in college. Additionally, high-quality transition experiences in high school positively predicted attitudes towards requesting accommodations. Students with higher quality transition experiences had more positive attitudes toward requesting accommodations, which predicted a higher likelihood of registering for accommodations. Furthermore, a significant indirect effect was found between the quality of transition support and attitudes toward requesting accommodations via disability identity. However, contrary to my hypotheses, self-determination factors did not predict attitudes towards requesting or registering for accommodations. Finally, this study identified specific transition factors (i.e., school support, home support, and direct discussions about registering with disability services), which predicted more positive disability identity, self-determination, and accommodation attitudes, respectively.

This study is novel in several ways. First, despite the growing population of students with disabilities in postsecondary education, factors surrounding disability self-disclosure remain an understudied area of research (Mullins & Preyde, 2013), and most studies exploring facilitators and barriers to registering have used qualitative methods (Lindsay et al., 2018; Grimes et al., 2020; Thompson-Ebanks & Jarman, 2018). As previously stated, students with nonapparent disabilities who have not registered with disability services offices are considered a "hidden population" or demographic in research that has not been well-studied (Grimes et al., 2020; O'Shea

& Meyer, 2016). Furthermore, other studies utilize samples of only students who received special education services via an IEP in high school (Newman & Madaus, 2014; 2015) rather than the many students with disabilities who receive accommodations via a 504 plan at the high school level.

Second, the relationship between transition services in high school and self-disclosure for disability services in college has not been well studied, with only one other extant study measuring whether transition services were received (Newman & Madaus, 2015). However, Newman and Madaus (2015) captured only whether transition services were received, while this study investigated the quality of the transition experiences as a predictor of self-disclosure for accommodations. Furthermore, current studies report that most students report not receiving transition services (Penick, 2018; Shogren & Wehmeyer, 2020), yet these studies also do not explore additional forms of transition support such as family support involvement (Morningstar et al., 2010). No studies found measured the relations between transition support and disability identity.

Finally, disability identity as a construct remains understudied despite being associated with positive life outcomes for individuals with disabilities (Bogart, 2015; Zapata, 2020). In addition, the study of disability identity has primarily used qualitative methods (Forber-Pratt et al., 2017), and only a few other students have examined the impact of disability identity on accommodation usage (Lam, 2015; Penick, 2018). Overall, this is the first study to quantitatively examine the effect of quality transition support in high school (retrospectively) on college students' disability identity and attitudes towards self-disclosure for accommodations and to

explore pathways between quality transition support and self-disclosure attitudes (i.e., ATRA) via self-determination factors and disability identity.

Descriptive Results

Surprisingly, almost half of the participants in this study (45.6%) did not identify as individuals with a disability. These students do not identify despite having been provided accommodations and services legally as a student with a disability in high school via a 504 plan or IEP. This number is slightly lower than in previous studies, such as by Newman and Madaus (2014), who found that a majority (56.7%) of students who were previously identified as having a disability in high school do not consider themselves to have a disability once they reached postsecondary school. However, given that nearly half of the participants did not believe themselves to have a disability despite all previously having received accommodations for a disability, this number is still relatively high. This study provides an updated analysis with a sample recruited from the general population of students rather than exclusively from disability services offices.

Hypothesized reasons why students may not identify are varied. Disability identity continues to be stigmatized, and there may be a lack of self and family acceptance of the term, in addition to a lack of cultural acceptance (Dunn, 2015). Given the stigma and lack of cultural understanding of disability, those with nonapparent disabilities may choose not to "come out" as an individual with a disability despite experiencing a need for accommodations (Dunn, 2015; Darling, 2003). There also seems to be a lack of understanding of the term disability applied via Section 504 and the ADA. Research suggests that many students are unaware that

their diagnosis qualifies them as students with a disability and makes them potentially eligible for accommodations (Lindsay et al., 2018). Furthermore, while many students are provided accommodations to compensate for functional impairments associated with their disability, they may not realize they receive these services because of a legally defined disability. This phenomenon is consistent with prior research indicating that students often lack knowledge of their IEP from high school and are unaware of the accommodations they might need during postsecondary school (Cawthon & Cole, 2010).

Most participants in the study (67.6%) were registered for accommodations with their college or university. This percentage is much higher than Newman and Madaus's (2015) finding, whereby ⅔ of participants with disabilities in their sample did not register for accommodations. My study may not capture those students sufficiently, as Newman and Madaus (2015) utilized a longitudinal sample of students who had been identified in high school rather than the sampling methods used in this study, which asked students to self-identify as a student with a diagnosis or disability in college. Newman and Madaus's (2015) sample also differed substantially from mine. For instance, they found that most students in their sample qualified with learning disabilities. In contrast, most individuals in the current sample reported that ADHD was their primary disability that impacted their learning. Newman and Madaus also took the disability of the sample from their high school records rather than having individuals self-report. Furthermore, their sample was largely male, whereas the majority of participants in the current study identified as female (64%).

Additionally, in this study, parental education was a significant positive predictor of registering for accommodations. However, the sample itself was highly skewed towards participants whose parents had higher levels of education. Other researchers have identified that parents who can access more social capital have a higher ability to access resources at school via IEP and 504 plans (Trainor, 2008, Lam, 2015).

Relationships between Self-disclosure Attitudes and Behaviors

In this study, attitudes toward requesting accommodations included attitudes towards the fairness of accommodations, attitudes about talking about or being labeled as an individual with a disability in college, attitudes about needing accommodations due to a disability, and perceived barriers towards accessing accommodations (e.g., lack of knowledge, attitudes about going to disability services offices). These factors align with many of the perceptions that students cite as reasons they may or may not register for accommodations, including lack of awareness, fear of stigma, fear of discrimination from faculty or college staff, and comfort with help-seeking or discussing their disability (Lindsay et al., 2018). In this study, participants' attitudes toward requesting accommodations significantly predicted whether students completed the behavior of registering for accommodations, as has been found in prior literature (Barnard-Brak et al., 2010; Monagle, 2015).

Research Question 1

Research question 1 investigated whether self-determination factors (psychological empowerment and self-realization), quality of transition support during high school, or disability identity predicted attitudes toward requesting

accommodations or registering with disability services. I hypothesized that all predictors would significantly predict more positive attitudes towards requesting accommodations and registering for accommodations with disability services.

As hypothesized, quality of transition predicted attitudes toward requesting accommodations and registering for accommodations. Given that quality transition support in this study included prior positive experiences interacting with others regarding disability, opportunities for self-advocacy at home and school, and explicit discussions about receiving disability services, I expected that those efforts would promote more positive attitudes toward self-disclosure and the behavior of registering for accommodations. This result differs somewhat from the longitudinal study conducted by Newman et al. (2015), who found that the presence of transition support for students with IEPs predicted receipt of disability services. Yet, this finding was only valid for students attending two-year institutions and was not significant for those attending four-year institutions, such as in my study.

As hypothesized, disability identity also predicted attitudes toward requesting accommodations. I hypothesized that previous positive experiences interacting with one's disability identity (Tafjel, 1981), including positive experiences with school staff and family regarding disability services, would promote a positive disability identity that would, in turn, reduce stigma or avoidance of that label and promote help-seeking/ self-advocacy for future supports for college students with disabilities. This finding lends credence to social identity theory, in that previous positive experiences related to disability predict more acceptance and less avoidance of the disability label (Tafjel, 1981; De Cesarai, 2015).

While disability identity did not directly predict registering for accommodations in the logistic regression model, disability identity predicted more positive attitudes towards requesting accommodations. Some students may register for accommodations even with a negative disability identity. Those students may understand the necessity of accommodations for their functioning but might resent the need to use accommodations or be pushed to use accommodations by other stakeholders such as their parents rather than driving the process themselves.

Contrary to my hypothesis, neither self-determination factor was a significant predictor of attitudes toward requesting accommodations or registering for accommodations. The association between self-determination and self-disclosure for accommodations has been mixed in previous studies. Eddy (2010) and Lam (2015) found that self-determination factors positively related to self-disclosure. In contrast, Newman and Madaus (2015), who used the same self-determination factors in the ARC scale as in this study, found that psychological empowerment was not a significant predictor of accommodation use and that self-realization negatively predicted accommodation use. To explain their results, they hypothesized that students with disabilities might overestimate their abilities to overcome the limitations associated with their disabilities. Thus, those with higher self-determination did not use accommodations. However, it is also possible that those with higher self-determination are more effective at using other resources on campus, such as office hours and academic support, that could reduce their need to use accommodations.

Research Question 2

Research question 2 examined whether the quality of secondary-postsecondary transition support predicted disability identity or self-determination factors (psychological empowerment and self-realization). As hypothesized, transition quality predicted both disability identity and self-determination (self-realization and psychological empowerment).

The Impact of Quality Transition on Self-determination

My finding that quality transition predicted self-determination was consistent with previous literature. One study has determined that quality transition support predicted self-determination skills in college students (Eddy, 2010). Morningstar et al. (2010) found that high-quality quality transition support correlated with self-determination factors, specifically psychological empowerment. This finding also aligns with current practices for transition. One primary goal of transition support services is to provide students with the self-awareness and self-advocacy skills they will need after high school (Joyce & Rossen, 2006).

The Impact of Quality Transition on Disability Identity

I also hypothesized that the quality of transition support would predict disability identity based on Social Identity Theory (Tafjel, 2018), and the hypothesis was correct. This hypothesis is consistent with some previous qualitative literature, though no quantitative studies have explored this association. Penick (2018) found that students with disabilities who chose not to disclose for accommodations and reported less developed disability identity cited past negative support experiences in high school as a barrier to support-seeking. Those past qualitative results were confirmed via quantative analysis in this study.

Research Question 3

Research question 3 explored whether disability identity or self-determination factors (psychological empowerment and self-realization) mediated relations between quality of transition support and attitudes towards requesting accommodations.

Disability Identity as a Mediator

In model 1, disability identity was a significant mediator between transition quality and attitudes toward requesting accommodations, as I hypothesized. These results confirm data obtained from qualitative studies such as O'Shea and Meyer (2016). College students in their study described their high school experiences with disability support as integral to forming conceptualizations of their disability and being "formative in their constructions of the meaning of their disability" (p. 11). Additionally, students who were more secure in their disability identity discussed more positive high school experiences allowing them to feel supported and empowered, which led to them having a positive identification as a student with a disability, and then more positive attitudes to seeking accommodations in postsecondary school (O'Shea & Meyer, 2016).

This result also affirms that students who have positive earlier experiences with having an IEP/504 and interactions with adults who display more positive beliefs about their abilities can believe and think more positively about themselves, such that they can self-advocate for their needs. This result is consistent with ideas around stigmatized identities and self-stigma (Corrigan & Watson, 2002), suggesting that those who believe more positively about their identity and have less self-stigma can discuss that identity, seek support, and continue to identify more publicly to self-

advocate (i.e., going to the disability services office). Students with disabilities who face less stigma through their interactions at school (e.g., not perceiving lower expectations or being devalued or discriminated against) would have higher self-esteem and self-efficacy (Link 1987; Markowitz 1998). Those students would be more willing to disclose their stigmatized identity to those around them (Grimes et al., 2017; Clement et al., 2014).

Self-determination Did Not Serve as a Mediator

While disability identity mediated relations between quality of transition and attitudes toward requesting accommodations, neither self-determination factor (psychological empowerment or self-realization) significantly related to either outcome. This finding was contrary to my hypothesis. While there is no prior research on this relationship, Lam (2015) found that psychological empowerment mediated relations between disability identity and frequency of accommodation use. However, their study mainly included participants already registered for accommodations and used frequency of accommodation use as an outcome variable.

As previously stated, the literature on self-determination predicting self-disclosure has been mixed (Eddy, 2010; Lam, 2015; Newman & Madaus, 2015), and students with higher self-determination may overestimate their abilities and miscalculate their need for accommodations, as hypothesized by Newman and Madaus (2015). However, given that students higher in self-realization have more awareness of their strengths and challenges (Wehmeyer et al., 2014), these students may choose classes or academic paths that align better with their strengths, lessening their need for accommodations.

Exploring Factors Underlying Quality Transition

This study also explored three different factors of quality transition (i.e., school support, home support, and discussions about disability services) to determine which factors determine specific outcomes. I made no hypotheses for these relations, and analyses were exploratory.

Results of path analyses indicated that school support, which measured school-based support of transition and self-advocacy, was the only factor that predicted disability identity. Analyses found significant indirect effects between school support, disability identity, and attitudes towards requesting accommodations. This finding aligns with prior qualitative research on this subject, which has found that students who report that previous positive experiences in receiving disability services impact their identification as a student with a disability, which then promotes help-seeking and self-advocacy for disability services (Penick, 2018; O'Shea & Meyer, 2016). This study contributes to the literature by providing quantitative data to add validity to students' reports with a larger population of students.

When I examined the three quality of transition factors together, the only transition factor that significantly and positively predicted attitudes towards requesting accommodations and registering for accommodations was discussions about disability services, both at home and at school. This factor measured whether students had explicit discussions with either school or home about seeking disability services and registering for accommodations in college. While direct discussions and instructions on requesting and accessing accommodations and supports are recommended as a best practice for transition (Madaus et al., 2014), it has often been

overlooked in school-based practice. According to the literature, students report not typically attending IEP or transition planning meetings (Anctil et al., 2008; Newman et al., 2016; Penick, 2018) where these discussions may occur. In fact, in my study only 61.9% of participants reported attending their IEP or 504 meetings in high school. Furthermore, only 38.4% (*n*=109) of participants in our study indicated that school staff had talked to them about receiving accommodations in college. In comparison, 66.9% indicated that their family had discussed getting accommodations in college with them (*n*=190). Additionally, only 27.1% (n=77) of students reported that they had discussions with school staff in high school about advocating for disabilities services and disclosing their disability in college, compared to 52.46% (n=149) who reported having those conversations with their family. These results highlight the need for school personnel to facilitate explicit discussions about seeking accommodations when students are preparing for postsecondary education, both in 504/IEP meetings and individually with students and their families.

Finally, family support, but not school support, predicted both self-determination factors. This finding aligns with prior research that family involvement can play an integral role in building self-determination skills (Morningstar et al., 2010; Newman, 2005). Morningstar et al. (2010) emphasized the family's role in transition support and IEP preparation and discussion. In fact, college students with disabilities with more developed self-determination skills report high family involvement in transition planning, particularly in modeling advocating for services at the high school level (Anctil et al., 2008).

Limitations

One of the significant limitations of the study was the short-term cross-sectional design and the relatively small sample size. Because of the cross-sectional design, . In the future, researchers should employ tactics to enhance recruitment such as offering more significant incentives for participation and expand the number of institutions used for recruitment. Furthermore, because this study used fairly narrow inclusion criteria for participation, future studies could consider broadening the inclusion criteria to recruit more participants. Additionally, this study relied only on self-report data from participants and had them report on prior experiences via the transition quality measure, which could introduce recall bias. Future studies could utilize longitudinal methods and collect data from multiple informants or sources to enhance the validity of the results. A longitudinal study investigating additional factors, including the impact of disability identity and disability identity formation measured at multiple timepoints, could further investigate this process, and inform interventions to promote more high-quality transition practices. Furthermore, because the data was cross-sectional, the significant indirect effects between transition quality, disability identity, and attitudes towards requesting accommodations may not be a causal relationship. Future longitudinal studies could measure disability identity prior to and after receiving transition support to prove a causal relationship.

Furthermore, this study did not include individuals who did not have the resources or system-level knowledge to receive accommodations earlier. While students already having access to an IEP/504 was included as inclusion criteria to ensure that those in the study would likely qualify for accommodations and benefit from accommodations at the college level, it also excluded those that lack the

institutional knowledge and resources to receive qualifying classifications (e.g., diagnosis, navigating the special education or 504 processes, etc.). Therefore, the sample only included those who had already successfully navigated the system to enter postsecondary education and receive accommodations. This factor is particularly important to consider given that parental education, which is frequently conceptualized as a proxy variable for the socioeconomic status of a family in research (Bornstein & Bradley, 2014), predicted registering for accommodations in the study. Future studies should also consider additional factors that contribute to additional social capital within the realm of postsecondary education. For instance, first generation college students would have families with less experience navigating postsecondary educational processes. Furthermore, students whose parents do not speak English as a first language will have additional barriers to accessing their support or aid in registering for accommodations.

The study's sample was predominantly white and female, with highly educated parents. Therefore, the results cannot be generalized to more diverse populations with lower access to resources. Future studies should enhance efforts to recruit students from diverse populations, and could partner with more diverse institutions for recruitment or work with high schools to reach diverse students with disabilities who are transitioning to college. Furthermore, this study only included students from four-year colleges, and future studies should also include individuals from two-year colleges and community colleges. Future researchers should investigate these populations because other researchers have found results differing

between those attending 4-year and 2-year universities (Newman & Madaus, 2014; 2015).

Additionally, this study only identified seeking disability accommodations as an appropriate service to manage symptoms or cope with functional limitations of a disability. Students may identify and utilize other appropriate services other than seeking accommodations. Future research should consider other services accessed during the help-seeking process that may render accommodations unnecessary but are still accessed through the help-seeking and self-advocacy process.

Some limitations were also present in the data analysis as it relates to self-determination factors, specifically psychological empowerment. The psychological empowerment construct had lower than expected reliability (.62), compared to what has been found in previous studies (.73, Morningstar, 2010; Lam, 2015). However, these studies used a longer version of the measure, while this study used a shortened version of the measure that was previously used in the NLTS2 study and validated for use by the measure authors (Newman & Madaus, 2015; Wehmeyer & Kelchner, 1995; Shogren et al., 2014). Because the reliability statistic of the measure did not meet acceptable internal reliability criteria (DeVellis, 2003), the relationship between psychological empowerment and attitudes and behaviors of requesting accommodations cannot be fully determined. In fact, other studies have found psychological empowerment to be a significant predictor of requesting accommodations with college students (Lam, 2015). Furthermore, in this study, psychological empowerment was found to be a significant correlate of attitudes

toward requesting accommodations but was not a significant predictor when other factors were included in regression models.

Finally, one factor that this study did not consider as a barrier was the executive functioning skills required to register for accommodations given the multiple steps and processes required to register for accommodations. Given that the majority of students in this study identified as having ADHD, those students likely have more difficulty taking the steps to identify sources of support, making appointments, gathering information needed for the appointment, and following through with keeping the appointment and using their accommodations. Future studies should investigate these barriers to registering and receiving accommodations, as well as the level of support different students receive throughout the process from others including coaches, therapists, and parents. Additionally, messages that students are receiving from parents around disability and identity should be further investigated. In this study, for instance, 68% of participants agreed or strongly agreed that their family did not believe they were "disabled enough" to receive accommodations. It is highly likely that without parental support, students will not take the additional steps to register and identify themselves as having a disability. Future studies should further explore the role of parents or caregivers in promoting disability identity and facilitating self-advocacy and help-seeking for accommodations.

Implications and Future Directions

Prior research has identified educational and social-emotional benefits associated with self-disclosing a disability and registering for accommodations for

students with disabilities (Blasey, 2020; Mamiseishvili & Koch, 2011; Corrigan et al., 2010). However, many college students with nonapparent disabilities reportedly delay registering for accommodations until they are already experiencing academic difficulties (Kranke et al., 2013; Getzel & Thoma, 2008). Therefore, higher educational institutions (colleges and universities) should promote self-disclosure and registration for students who qualify for and benefit from accommodations. Researchers should continue to identify processes that lead to a successful transition and accommodation registration for students with disabilities.

Implications for Research

Those with disabilities in postsecondary education who do not seek disability services are acknowledged as a "hidden population" that is difficult to capture in research (Grimes et al., 2020). Therefore, it is crucial to continue to determine methods for recruiting and better understanding these students and those who have already registered with disability services and more readily identify as students with disabilities.

This study makes several significant contributions to the literature, including highlighting the importance of disability identity in driving the process from students receiving preparation for transition to self-advocating and registering for accommodations. Future studies should explore the development of disability identity further. A longitudinal study investigating additional factors, such as school climate, stigma, or peer support, and disability identity and disability identity formation, could further investigate this process and inform interventions to promote more high-quality transition practices that promote positive disability identity. Furthermore, more

attention should be paid in the literature to factors that can promote more positive disability identity within school climate or culture. School staff can discuss disability in IEP or 504 meetings to help promote more positive identity formation. Additional research on interventions to encourage disability identity at the point of receiving a diagnosis or categorization or while in school could help alleviate barriers for students in their future academic or occupational careers.

Implications for Practice

Given the risk students with disabilities face for academic underachievement in postsecondary education, secondary and postsecondary schools should be aware of potential barriers and facilitators to prepare and support students with disabilities in college appropriately. This study identified several areas for possible intervention, such as transition practices that instill a more positive disability identity, encouraging direct discussions about registering for accommodations, and school-based support for the postsecondary transition.

These results indicate lower disability identity and the influence of stigma as a barrier to students' help-seeking and self-advocacy. According to theorists, stigma impacts disability identity closely because social identity theory notes that those who avoid or deny their identity are doing so out of awareness that the identity itself is stigmatized or marginalized (Dunn et al., 2015; Lindsay et al., 2018). Furthermore, previous studies have found that stigma plays a significant role in not disclosing a disability (Grimes et al., 2020; Martin, 2010; Lindsay et al., 2018). However, it is essential not just to consider the self-stigma that students with disabilities may face

but the stigma imparted by the schools, parents, and other individuals around the student by not explicitly discussing disability identity with students.

Secondary Schools

This study highlights the importance of high-quality transition practices in high schools, emphasizing promoting a positive disability identity. According to literature, high-quality transition support emphasizes instilling self-advocacy or self-determination skills to reach educational or career goals. However, two self-determination factors that are theorized to promote outcomes like self-advocacy and help-seeking (Newman & Madaus, 2015; Shogren & Wehmeyer, 2020) were not found to predict the self-advocacy behavior of registering for accommodations in this study. However, self-determination has been seen to predict other positive educational outcomes (Jameson, 2007; Durlak et al., 1994). While the focus on self-determination continues to be an essential endeavor for high school students with disabilities, this study found that both psychological empowerment and self-realization were significantly predicted by home support for transition and self-advocacy. In contrast, school support only significantly predicted self-realization to a lesser degree.

These results support transition approaches that integrate explicit instruction and discussion about seeking disability services and promoting a positive disability identity. For instance, Madaus, Morningstar, and Test (2014) described a tiered planning process to support the transition to college for students with disabilities. The approach includes instructions on the impact of their disability and what accommodations are available to address those needs at tier II. Tier III includes direct

instruction in developing skills on how to identify and request specific accommodations. Alternately, Barnard-Brack et al. (2013) piloted a program with high school seniors that included discussions of services available to them and visits to college disability services offices, which was found to enhance attitudes towards requesting accommodations for those students. Based on the results of this study, it will be additionally important to target students who qualify with psychological disabilities for intervention, as they are at higher risk due to lower ratings of disability identity, self-determination skills, and more negative attitudes towards requesting accommodations.

School staff and parents should also consider ways to impart a positive disability identity for students. O'Shea and Meyer (2016), in their qualitative study of students with positive disability identities who had registered for accommodations in postsecondary school, described a typical process of "collaborative empowerment" whereby students noted that significant adults in their lives had provided labels or defined their disability for them in an empowering way. These interactions with adults then shaped their self-concept related to their disability and encouraged them to continue seeking services in their later life (O'Shea & Meyer, 2016). According to prior research, students participating in a disability community and having role models with disabilities promote disability identity formation and disclosure (Penick, 2018). Furthermore, when students have experienced negative interactions with disability support, such as microaggressions or discrimination, proactive approaches to rectify the negative interactions and promote a more favorable climate should be employed.

Postsecondary Schools

Based on these results, it is imperative that postsecondary schools also consider the needs of transitioning students who may arrive on campus without a clear understanding of their needs or the process of obtaining accommodations. It is clear from the results that students with disabilities will come to college with differing levels of transition support, even when they have received accommodations in high school. Furthermore, research has shown that postsecondary students with disabilities may delay disclosing their disability until they are already experiencing academic difficulties (Kranke et al., 2013; Getzel & Thoma, 2008). Institutions should be aware of the barriers that students may face to receive accommodations. This study identifies negative disability identity as a significant barrier for students, and schools should make an to identify and promote more positive disability identity. This process could include promoting mentors and role models with disabilities, creating opportunities for students with disabilities to connect and share resources, and efforts to reduce stigmatizing responses from instructors (Penick, 2018). Furthermore, because students may avoid disability services because of the word "disability", disability offices should expend more effort to help define and destigmatize the term "disability" for students by providing additional outreach and education.

Conclusion

Despite being legally entitled to accommodations to overcome their functional limitations, many students with disabilities who have received accommodations in high school do not self-disclose and request accommodations in postsecondary

school. This study explored the factors that facilitate students self-disclosing their disability to obtain accommodations, and, ultimately, equity for individuals with disabilities. As hypothesized, quality transition support plays a vital role in helping students identify positively as individuals with a disability and to self-disclosing a disability and register for accommodations. Therefore, students' experiences during the transition period from high school to postsecondary significantly impact their perception of themselves as it relates to their disability and inform their decisions to seek help and self-advocate. My results also suggest that more school support for transition promoted a more positive disability identity, which predicted more positive attitudes towards requesting accommodations.

These results inform future research into the effective transition from high school to college for students with disabilities and strategies to instill a positive sense of identity or emphasize self-determination skills. This research contributes important information about additional transition supports that individuals need, including school-based support to enhance a positive disability identity and more explicit instruction in self-advocating for disability accommodations. Overall, the need for direct discussions with transitioning students about requesting and receiving accommodations is clear. In looking forward, it will also be essential to emphasize school-based transition services that can enhance a positive disability identity and help-seeking/ self-advocacy behaviors such as registering for accommodations. These findings are significant given the growing number of students with disabilities entering postsecondary education and the adverse outcomes associated with those students not registering for accommodations.

Appendices

Appendix A

Results Tables

Table 1

Sample Demographics: Gender, Age, Year in College, Ethnicity

Demographic Variables	Total Sample	
	N	%
Gender		
Female	186	65.5%
Male	76	26.8%
Non-binary/ Gender Non-conforming	13	4.6%
Transgender	4	1.4%
Prefer to self-describe/ Prefer not to say	5	1.8%
Age		
18 years	49	17.3%
19 years	58	20.4%
20 years	56	19.7%
21 years	59	20.8%
22 years	30	10.6%
23+ years	32	11.4%
Race/ Ethnic Identification		
Black or African American	19	6.7%
Alaskan Native	1	.4%
Asian or Asian American	32	11.3%
Latinx or Hispanic	19	6.7%
White or European American	192	67.6%
Bi-racial/ Multi-racial	16	5.6%
Other	5	1.8%

Table 2

Sample Demographics: Type of Primary Disability, Registered with Disability Services

Demographic Variables	Total Sample	
	N	%
Primary Disability Identified		
ADHD	112	39.4%
Psychological diagnosis/ disability	73	25.7%
Learning disability/ disorder	33	11.6%
Chronic health impairment/ chronic illness	31	10.9%
Developmental disability	9	3.2%
Mobility impairment	3	1.1%
Deafness or hard of hearing	4	1.4%
Head injury or traumatic brain injury	3	1.1%
Blindness or low vision	2	0.7%
Other	13	4.6%
Do you identify as an individual with a disability?		
Yes	154	54.2%
No	130	45.8%
Have you registered with your college/university to receive accommodations?		
Yes	192	67.6%
No	92	32.4%

Table 3

Parental Educational Attainment of Sample

	Mother's Years of Education *N*	Father's Years of Education *N*
Did not complete high school	5	9
Graduated from high school or equivalent (GED)	22	29
Completed some college	20	20
Graduated from college	104	85
Some graduate school	12	7
Completed graduate school	121	134

Table 4

Participants Report of Whether they have Registered for Accommodations by Disability Identification

		Disability Identification		
		No	**Yes**	**Total**
Registered for Accommodations	**No**	58	35	93
	Yes	72	120	192
	Total	130	155	

Table 5

Descriptive Statistics of Measures

Measures	Number of Items	Cronbach's alpha
Attitudes Toward Requesting Accommodations (ATRA)	31	**.87**
Quality of Transition Support	20	**.91**
QT: School Support	9	**.88**
QT: Home Support	6	**.85**
QT: Discussions about Disability Services	4	**.77**
Self-Realization	6	**.65**
Psychological Empowerment	7	.62
Disability Identity	8	**.81**

Note. Alpha coefficients in bold meet an acceptable internal reliability level of .65 or higher (DeVellis, 2003)

Table 6

Correlations, Means, Skewness and Kurtosis of Variables of Interest

	Measure	1	2	3	4	5	6	7	8	9
1.	ATRA	1								
2.	Quality of Transition	.334***	1							
3.	QT: School Support	.234**	.898***	1						
4.	QT: Home Support	.289***	.822***	.571***	1					
5.	QT: Discussions about Disability Services	.364***	.764***	.527***	.536***	1				
6.	Disability Identity	.501***	.361***	.361***	.254***	.262***	1			
7.	Psychological Empowerment	.271**	.287***	.241***	.311***	.157**	.311**	1		
8.	Self-Realization	.306***	.366***	.309***	.377***	.222***	.469***	.592**	1	
9.	Parent Years of Education	.052	.304***	.251***	.284***	.231***	.013	.059	.055	1
	M(SD)	98.73 (15.36)	66.62 (15.20)	27.34 (7.87)	23.29 (5.20)	12.21 (4.13)	23.53 (6.49)	5.50 (1.54)	4.54 (1.52)	34.43 (5.06)
	Skewness	-.192	-.058	-.058	-.846	-.246	-.033	-.987	-.862	-.767
	Kurtosis	-.305	-.342	-.342	.385	-.588	-.459	.594	-.232	-.089

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. ATRA=Attitudes Toward Requesting Accommodations

Table 7

Mean Scores and Standard Deviations for Variable of Interest by Primary Disability

	Disability Identity *M (SD)*	ATRA *M(SD)*	Self-Realization *M(SD)*	Psychological Empowerment *M(SD)*	Quality of Transition *M(SD)*
Learning Disability	25.15 (5.64)	104.67 (14.25)	5.21 (1.05)	6.03 (1.26)	68.75 (10.51)
ADHD	24.46 (5.85)	99.80 (14.43)	4.61 (1.42)	5.54 (1.46)	63.29 (15.70)
Psychological Disability	20.83 (6.21)	93.67 (15.17)	3.90 (1.77)	4.80 (1.81)	58.79 (12.98)
Chronic Illness	23.90 (6.88)	103.48 (14.98)	5.13 (1.02)	6.06 (1.06)	61.13 (11.76)

Note. ATRA=Attitudes Toward Requesting Accommodations

Table 8

Hierarchical Binary Logistic Regression Predicting the Behavior of Registering for Accommodations

	Step 1			Step 2		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Female Gender	.326	.294	1.386	.147	.328	1.158
Race (White Ref)	.087	.294	1.091	.016	.330	1.016
Parent Years of Education	.139*	.057	1.149	.165*	.064	1.179
Primary Disability (ADHD vs. not)	.399	.291	1.490	.228	.324	1.256
Age	.076	.069	1.079	.096	.074	1.100
Self-Realization	.029	.111	1.030	-.079	.126	.924
Psychological Empowerment	.016	.109	1.016	-.065	.122	.937
Quality of Transition Support	.023*	.011	1.023	.005	.012	1.005
Disability Identity	1.203***	.284	3.330	.839**	.312	2.313
ATRA	--	--	--	.080***	.013	1.083

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. ATRA=Attitudes Toward Requesting Accommodations

Table 9

Binary Logistic Regression Including Quality of Transition Factors Predicting Registering for Accommodations

	B	S.E.	Exp(B)
Female Gender	.247	.337	1.280
Race (White Ref)	.023	.340	1.024
Parent Years of Education	.177**	.066	1.194
Primary Disability (ADHD vs. not)	.166	.333	1.180
Age	.134	.077	1.143
Self-Realization	-.044	.131	.957
Psychological Empowerment	-.028	.126	.972
Disability Identity	.682*	.321	1.978
QT: School Support	-.043	.027	.958
QT: Home Support	-.036	.040	.965
QT: Discussions about Disability Services	.173**	.053	1.189
ATRA	.076***	.013	1.079

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. ATRA=Attitudes Toward Requesting Accommodations

Table 10

Self-realization, Psychological Empowerment, Quality of Transition Support, and Disability Identity Regressed on Attitudes Towards Requesting Accommodations

	B	Std. Error	*β*	*t*
(Constant)	96.156***	5.947	--	16.169
Primary Disability (ADHD vs. not)	.277	1.618	.009	.171
Parent Years of Education	-.037	.164	-.012	-.223
Gender (Female Ref)	4.251*	1.679	.133	2.533
Race (White Ref)	1.816	1.692	.056	1.074
Self-Realization	-.174	.685	-.018	-.255
Psychological Empowerment	.756	.630	.077	1.200
Quality of Transition Support	.179**	.063	.170	2.868
Disability Identity	1.023***	.142	.432	7.204

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

Appendix B

Study Measures

The Arc's Self-Determination Scale-Short Form Post-Secondary Education Version (Wehmeyer et al., 2014).

Self-Realization Scale (7 items, scored either "Agree"= 1 or "Disagree"= 0)

Instructions: Tell whether each of these statements describes how you feel about yourself or not. There are no right or wrong answers. Choose only the answer that BEST fits you.

1. It is better to be yourself than to be popular.
2. I am loved because I give love.
3. I know what I do best.
4. I like myself.
5. I know how to make up for my limitations.
6. I am confident in my abilities.

Psychological Empowerment Scale (7 items, choose 1 of 2 choices)

Instructions: Check the answer that BEST describes you. Choose only ONE answer for each question. There are no right or wrong answers.

	0 points	**1 point**
1.	I usually agree with people when they tell me I can't do something.	I tell people when I think I can do something that they tell me I can't
2.	Trying hard at school doesn't do me much good.	Trying hard at school will help me get a good job.
3.	It is no use to keep trying because that won't change things	I keep trying even after I get something wrong
4.	I don't know how to make friends.	I know how to make friends.
5.	I do not make good choices	I can make good choices.
6.	I will have a hard time making new friends	I will be able to make friends in new situations.
7.	My choices will not be honored.	I will be able to make choices that are important to me.

Quality of High School Transition Preparation Scale (Morningstar et al., 2010; Adapted by Ramsdell, 2014)

Scale Items	Factors Identified Through EFA
1. I was involved in planning for my future.	Home Support
2. I was asked for input to determine which courses I should take and what support I needed in my classes.	School Support
3. I had classes during high school that helped me learn to advocate for myself and make decisions about my future.	School Support
4. Teachers encouraged and instructed me on how to speak up for myself both in high school and outside of school.	School Support
5. Teachers scheduled time with me to discuss my plans for my future.	School Support
6. Teachers worked with me to help me determine the best way to advocate for myself.	School Support
7. My family worked with me to help me determine the best way to advocate for myself.	Home Support
8. I had opportunities in school to advocate for myself.	School Support
9. I had opportunities at home to advocate for myself.	Home Support
10. I had class lessons that included topics such as study and organizational skills.	School Support
11. I had discussions with school staff that included information about advocating for disability services in college and how to disclose a disability.	Discussions about Disability Services
12. I had discussions with family that included information about advocating for disability services in college and how to disclose a disability.	Discussions about Disability Services
13. My family and I participated in activities to help prepare me for college such as visiting college campuses and helping me complete college applications.	Home Support
14. I learned many things during class in high school that have helped me live on my own.	School Support

15. I learned many things at home that have helped me live on my own.	Home Support
16. My parents talked about how to be successful when I was on my own.	Home Support
17. My school provided helpful preparation for my transition to college.	School Support
18. My family talked to me about getting accommodations in college.	Discussions about Disability Services
19. School staff at my high school talked to me about getting accommodations in college.	Discussions about Disability Services

Personal Disability Identity Scale (Hanh & Belt; 2004): 5-point Likert-type scale from 1 ("strongly disagree") to 5 ("strongly agree").

Scale Item	Factor
1. In general, I'm glad to be a person with a disability.	Disability Acceptance
2. Being a person with a disability is an important reflection of me.	Disability Acceptance
3. I have a clear sense of what my disability means to me.	Disability Acceptance
4. I feel proud to be a person with a disability.	Disability Acceptance
5. My disability sometimes makes me feel ashamed.	Disability Affirmation
6. I do not feel good about being a person with a disability.	Disability Affirmation
7. I regret that I am a person with a disability.	Disability Affirmation
8. I do not have a sense of belonging to the disability community.	Disability Affirmation

Attitude Toward Requesting Accommodations Scale (the ATRA scale; Barnard-Brak, et al., 2010). 5-point Likert-type scale from 1 ("strongly disagree") to 5 ("strongly agree").

Scale Item	Factor
1. Accommodations are unfair to other students.	Academic Integrity
2. I want to prove I can do college.	Academic Integrity
3. Accommodations are for academically weaker students.	Academic Integrity
4. I want to stand on my own two feet.	Academic Integrity
5. Accommodations are for lazier students.	Academic Integrity
6. Students should try to get along without accommodations.	Academic Integrity
7. I have never felt like I needed accommodations	Academic Integrity
8. I don't like to admit that I have a disability.	Disability Disclosure
9. I don't like talking about my disability.	Disability Disclosure
10. I don't want professors to know that I have a disability.	Disability Disclosure
11. I don't like people knowing private and personal information about me, such as my disability.	Disability Disclosure
12. The cost of talking about my disability to get accommodations outweighs the benefits.	Disability Disclosure
13. I have a right to privacy regarding my disability.	Disability Disclosure
14. I don't want friends to know that I have a disability.	Disability Disclosure
15. My family doesn't think I am disabled enough to need accommodations.	Disability Acceptance
16. I don't think I am disabled enough to need accommodations.	Disability Acceptance
17. There's nothing wrong with me.	Disability Acceptance
18. I don't know sometimes whether I am really all that disabled.	Disability Acceptance
19. I prefer to be treated as a person without a disability.	Disability Acceptance
20. I want to be like other college students.	Disability Acceptance

21. I am afraid of being labeled.	Disability Acceptance
22. People don't think I have a disability.	Disability Acceptance
23. The disability services office at my school is unhelpful.	Accommodations Process
24. The disability services office at my school is unapproachable	Accommodations Process
25. The disability services office at my school did NOT assist me.	Accommodations Process
26. I don't trust the disability services office to keep my information confidential.	Accommodations Process
27. I don't trust professors to keep my information confidential.	Accommodations Process
28. I didn't know anything about disability accommodations when I started college.	Accommodations Process
29. Going to the disability services office at my school is awkward.	Accommodations Process
30. Requesting accommodations from professors can be awkward.	Accommodations Process
31. Student disability services were NOT discussed at my new student or transfer orientation	Accommodations Process

References

Adams, K. S., & Proctor, B. E. (2010). Adaptation to college for students with and without disabilities: group differences and predictors. *Journal of Postsecondary Education and Disability*, *22*(3), 166-184.

Anctil, T. M., Ishikawa, M. E., & Tao Scott, A. (2008). Academic Identity Development Through Self-Determination: Successful College Students with Learning Disabilities. *Career Development for Exceptional Individuals*, *31*(3), 164–174. https://doi.org/10.1177/0885728808315331

Barnard-Brak, L., Schmidt, M., Wei, T., Hodges, T., & Robinson, E. (2013). Providing postsecondary transition services to youth with disabilities: Results of a pilot program. *The Journal of Postsecondary Education and Disability*, *26*(2), 135–144.

Barnard-Brak, L., Davis, T., Tate, A., & Sulak, T. (2009). Attitudes as a predictor of college students requesting accommodations. *Journal of Vocational Rehabilitation*, *31*(3), 189–198. https://doi.org/10.3233/JVR-2009-0488

Barnard-Brak, L., Sulak, T., Tate, A., & Lechtenberger, D. A. (2010). Measuring college students' Attitudes Toward Requesting Accommodations: A national multi-institutional study. *Assessment for Effective Intervention*, *35*(3), 141–147. https://doi.org/10.1177/1534508409358900

Barnard-Brak, L., Lechtenberger, D., & Lan, W. Y. (2010). Accommodation strategies of college students with disabilities. *Qualitative Report*, *15*(2), 411-429.

Blasey, J. (2020). *Disability service use and academic outcomes for college students with disabilities* (Doctoral dissertation).

Bornstein, M. H., and Bradley, R. H. eds (2014). Socioeconomic status, parenting, and child development. Abingdon: Routledge.

Bogart, K. R. (2015). Disability identity predicts lower depression and anxiety in multiple sclerosis. *Rehabilitation Psychology*, 60 (1), 105-109. doi:10.1037/rep0000029

Cauce, A. M., Domenech-Rodríguez, M., Paradise, M., Cochran, B. N., Shea, J. M., Srebnik, D., & Baydar, N. (2002). Cultural and contextual influences in mental health help seeking: A focus on ethnic minority youth. *Journal of Consulting and Clinical Psychology*, *70*(1), 44–55. https://doi.org/10.1037/0022-006X.70.1.44

Cawthon, S. W., & Cole, E. V. (2010). Postsecondary students who have a learning disability: Student perspectives on accommodations access and obstacles. *Journal of Postsecondary Education and disability*, *23*(2), 112-128.

Clement, S., Schauan, O., Graham, T., Maggioni, F., Evans-Lacko, S., Bezborodovs, N., Morgan, C., Rüsch, N., Brown, J. S. L., & Thornicroft, G. (2015). What is the impact of mental health-related stigma on help-seeking? A systematic review of quantitative and qualitative studies. *Psychological Medicine*, *45*(1), 11–27. https://doi.org/10.1017/S0033291714000129

Cole, E. V., & Cawthon, S. W. (2015). Self-disclosure decisions of university students with learning disabilities. *Journal of Postsecondary Education and Disability*, *28*(2), 163–179. http://ahead.org/publications/jped/vol_28/no2tc

Corrigan, P. W., & Shapiro, J. R. (2010). Measuring the impact of programs that challenge the public stigma of mental illness. *Clinical psychology Review*, *30*(8), 907-922.

Corrigan, P. W., Morris, S., Larson, J., Rafacz, J., Wassel, A., Michaels, P., ... & Rüsch, N. (2010). Self-stigma and coming out about one's mental illness. *Journal of community psychology*, *38*(3), 259-275.

Corrigan, P. W., Kerr, A., & Knudsen, L. (2005). The stigma of mental illness: Explanatory models and methods for change. *Applied and Preventive Psychology*, *11*(3), 179–190. https://doi.org/10.1016/j.appsy.2005.07.001

Cortiella, C., & Horowitz, S. H. (2014). The state of learning disabilities: Facts, trends and emerging issues. *New York: National center for learning disabilities*, *25*, 2-45.

Creswell, J. W. (2015). *A concise introduction to mixed methods research.* Thousand Oaks, CA: SAGE Publications, Inc.

Darling, R. B., & Heckert, D. A. (2010). Orientations toward disability: Differences over the lifecourse. *International Journal of Disability, Development and Education*, *57*(2), 131–143. https://doi.org/10.1080/10349121003750489

De Cesarei, A. (2015). Psychological factors that foster or deter the disclosure of disability by university students. *Psychological Reports*, 116(3), 665–673. https://doi.org/10.2466/15.PR0.116k26w9

Deci, E. L., & Ryan, R. M. (2000). The" what" and" why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, *11*(4), 227-268.

Dunn, D. S. (2015). *The social psychology of disability.* Oxford University Press.

Eddy, S. E. (2010). *A survey study of college students with disabilities and their involvement in the IEP/transition planning process*. The University of North Carolina at Charlotte.

Fichten, C. S., Nguyen, M. N., Amsel, R., Jorgensen, S., Budd, J., Jorgensen, M., Asuncion, J., & Barile, M. (2014). How well does the Theory of Planned Behavior predict graduation among college and university students with disabilities? *Social Psychology of Education*, *17*(4), 657–685. https://doi.org/10.1007/s11218-014-9272-8

Field, S., Sarver, M. D., & Shaw, S. F. (2003). Self-Determination: A key to success in postsecondary education for students with learning disabilities. *Remedial and Special Education*, *24*(6), 339–349. https://doi.org/10.1177/07419325030240060501

Field, S., Martin, J., Miller, R., Ward, M., & Wehmeyer, M. (1998). *A practical guide for teaching self-determination.* Reston, VA: Council for Exceptional Children

Fitzgerald, M. H., & Paterson, K. A. (1995). The hidden disability dilemma for the preservation of self. *Journal of Occupational Science*, *2*(1), 13-21.

Forber-Pratt, A. J., & Zape, M. P. (2017). Disability identity development model: Voices from the ADA-generation. *Disability and Health Journal*, *10*(2), 350–355. https://doi.org/10.1016/j.dhjo.2016.12.013

Gerber, P. J., Ginsberg, R., & Reiff, H. B. (1992). Identifying alterable patterns in employment success for highly successful adults with learning disabilities. *Journal of Learning Disabilities*, *25*(8), 475-487.

Getzel, E. E., & Thoma, C. A. (2008). Experiences of college students with disabilities and the importance of self-determination in higher education settings. *Career Development for Exceptional Individuals*, *31*(2), 77-84.

Gill, C. J. (1997). Four types of integration in disability identity development. *Journal of Vocational Rehabilitation*, *9*(1), 39-46.

Goffman, E. (1963). *Stigma: Notes on the management of spoiled identity*. Simon and Schuster.

Grimes, S., Southgate, E., Scevak, J., & Buchanan, R. (2020). University Student Experiences of Disability and the Influence of Stigma on Institutional Non-Disclosure and Learning. *Journal of Postsecondary Education and Disability*, *33*(1), 23-37.

Hadley, W. M. (2006). The Transition and Adjustment to First-Year Students with Specific Learning Disabilities. *Journal of College Orientation, Transition, and Retention*, *17*(1), 31–44. https://doi.org/10.24926/jcotr.v17i1.2711

Hahn, H. D., & Belt, T. L. (2004). Disability identity and attitudes toward cure in a sample of disabled activists. *Journal of Health and Social Behavior*, 45(4), 453–464. doi:10.1177/002214650404500407

Halpern, A. S. (1994). Transition: A look at the foundations. *Exceptional Children*, 51, 479-486.

Hammack, P. L. (2015). *Theoretical foundations of identity.* In K. C. McLean & M. Syed (Eds.), *Oxford library of psychology. The Oxford handbook of identity development* (p. 11–30). Oxford University Press.

Henninger, N. A., & Taylor, J. L. (2014). Family perspectives on a successful transition to adulthood for individuals with disabilities. *Mental Retardation*, *52*(2), 98-111.

Hengen, S., & Weaver, A. (2018). Post-Secondary Students with Disabilities: Increasing Self-Advocacy Through Educational Plan Participation. *The School Psychologist*, *72*(2), 7–18.

Individuals With Disabilities Education Improvement Act of 2004. Pub. L. No. 108-446

Janiga, S. J., & Costenbader, V. (2002). The transition from high school to post secondary education for students with learning disabilities: A survey of college service coordinators. *Journal of Learning Disabilities*, 38(5), 462-468, 479.

Kimball, E. W., Wells, R. S., Ostiguy, B. J., Manly, C. A., & Lauterbach, A. A. (2016). *Students with Disabilities in Higher Education: A Review of the Literature and an Agenda for Future Research.* https://doi.org/10.1007/978-3-319-26829-3_3

Kinavey, C. (2006). Explanatory models of self-understanding in adolescents born with spina bifida. *Qualitative Health Research*, *16*(8), 1091-1107.

Kline, R. B. (2015). Principles and practice of structural equation modeling. *Guilford publications.*

Kranke, D., Jackson, S. E., Taylor, D. A., Anderson-Fye, E., & Floersch, J. (2013). College student disclosure of non-apparent disabilities to receive classroom accommodations. *Journal of Postsecondary Education and Disability*, *26*(1), 35-51.

Lam, Y. W. (2015). *The effects of identity and psychological empowerment on accommodation usage and achievement for college students with disabilities.* (Doctoral dissertation).

Lee, F. (1997). When the going gets tough, do the tough ask for help? Help seeking and power motivation in organizations. *Organizational behavior and human decision processes*, *72*(3), 336-363.

Lightner, K. L., Kipps-Vaughan, D., Schulte, T., & Trice, A. D. (2012). Reasons university students with a learning disability wait to seek disability services. *Journal of Postsecondary Education and Disability*, *25*(2), 145–159.

Lindsay, S., Duncanson, M., Niles-Campbell, N., McDougall, C., Diederichs, S., & Menna-Dack, D. (2018). Applying an ecological framework to understand transition pathways to post-secondary education for youth with physical disabilities. *Disability and Rehabilitation*, *40*(3), 277–286. https://doi.org/10.1080/09638288.2016.1250171

Link, B. G. (1987). Understanding labeling effects in the area of mental disorders: An assessment of the effects of expectations of rejection. *American sociological review*, 96-112.

Madaus, J. W., Gelbar, N., Dukes III, L. L., Lalor, A. R., Lombardi, A., Kowitt, J., & Faggella-Luby, M. N. (2018). Literature on postsecondary disability services:

A call for research guidelines. *Journal of Diversity in Higher Education*, *11*(2), 133.

Mamiseishvili, K., & Koch, L. C. (2011). First-to-second-year persistence of students with disabilities in postsecondary institutions in the United States. Rehabilitation Counseling Bulletin, 54, 93–105. doi:10.1177/0034355210382580

Marshak, L., Van Wieren, T., Ferrell, D. R., Swiss, L., & Dugan, C. (2010). Exploring barriers to college student use of disability services and accommodations. *Journal of Postsecondary Education and Disability*, 22(3), 151-165.

Martin, J. E., & Williams-Diehm, K. (2013). Student engagement and leadership of the transition planning process. *Career Development for Exceptional Individuals*, *36*(1), 43–50. https://doi.org/10.1177/2165143413476545

Martin, J.M. (2010). Stigma and student mental health in higher education. Higher Education Research and Development, 29(3), 259-274.

McLaughlin, M. (2012). Access for all: Six principles for principals to consider in implementing CCSS for students with disabilities. Principal, September/October 2012, 22-26.

Monagle, K. (2015). *Beyond access: An examination of factors that influence use of accommodations by college students with disabilities*. Northeastern University.

Morningstar, M. E., Lombardi, A., Fowler, C. H., & Test, D. W. (2017). A college and career readiness framework for secondary students with disabilities. *Career Development and Transition for Exceptional Individuals*, 40(2), 79-91.

Morningstar, M. E., Frey, B. B., Noonan, P. M., Ng, J., Clavenna-Deane, B., Graves, P., Kellems, R., McCall, Z., Pearson, M., Wade Diana, D. B., & Williams-Diehm, K. (2010). A preliminary investigation of the relationship of transition preparation and self-determination for students with disabilities in postsecondary educational settings. *Career Development for Exceptional Individuals*, *33*(2), 80–94. https://doi.org/10.1177/0885728809356568

Mullins, L., & Preyde, M. (2013). The lived experience of students with an invisible disability at a Canadian university. *Disability & Society*, *28*(2), 147-160.

Murray, C., Lombardi, A., & Kosty, D. (2014). Profiling adjustment among postsecondary students with disabilities: A person-centered approach. *Journal of Diversity in Higher Education*, *7*(1), 31–44.

Nalavany, B. A., Carawan, L. W., & Rennick, R. A. (2011). Psychosocial experiences associated with confirmed and self-identified dyslexia: A participant-driven concept map of adult perspectives. *Journal of learning disabilities*, *44*(1), 63-79.

Newman, L. A., & Madaus, J. W. (2015). An analysis of factors related to receipt of accommodations and services by postsecondary students with disabilities. *Remedial and Special Education*, *36*(4), 208-219.

Newman, L., Wagner, M., Knokey, A. M., Marder, C., Nagle, K., Shaver, D., & Wei, X. (2011). The Post-High School Outcomes of Young Adults with Disabilities

up to 8 Years after High School: A Report from the National Longitudinal Transition Study-2 (NLTS2). NCSER 2011-3005. *National Center for Special Education Research*.

Newman, L. A., Madaus, J. W., & Javitz, H. S. (2016). Effect of transition planning on postsecondary support receipt by students with disabilities. *Exceptional Children*, *82*(4), 497–514. https://doi.org/10.1177/0014402915615884

O'Shea, A., & Meyer, R. H. (2016). A qualitative investigation of the motivation of college students with nonvisible disabilities to utilize Disability Services. *Journal of Postsecondary Education and Disability*, 29(1), 5-23.

Oyserman, D., Elmore, K., & Smith, G. (2012). Self, self-concept, and identity.

Penick. (2013). Disability identity development, disclosure, and accommodation seeking spanning the educational pipeline: A mixed methods study using a social justice lens.

Ramsdell, P. E. (2014). The college experience of students with disabilities: Do transition planning and climate perception relate to academic success? *Dissertation Abstracts International: Section B. Sciences and Engineering*, *75*(/11(E)).

Raue, K., & Lewis, L. (2011). *Students with disabilities at degree-granting postsecondary institutions.* Washington, DC: National Center for Education Statistics.

Ritsher, J. B., & Phelan, J. C. (2004). Internalized stigma predicts erosion of morale among psychiatric outpatients. *Psychiatry Research*, *129*(3), 257-265.

Shaw, S. F., Keenan, W. R., Madaus, J. W., & Banerjee, M. (2010). Disability Documentation, the Americans with Disabilities Act Amendments Act, and the Summary of Performance: How Are They Linked? *Journal of Postsecondary Education and Disability*, *22*(3), 142-150.

She, P., & Livermore, G. (2006). Material hardship, disability, and poverty among working-age adults: Research brief. *Rehabilitation Research and Training Center on Employment Policy for Persons with Disabilities*, Cornell University, Ithaca, NY.

Shogren, K. A., & Shaw, L. A. (2016). The role of autonomy, self-realization, and psychological empowerment in predicting outcomes for youth with disabilities. *Remedial and Special Education*, *37*(1), 55–62. https://doi.org/10.1177/0741932515585003

Shogren, K. A., & Wehmeyer, M. L. (Eds.). (2020). *Handbook of adolescent transition education for youth with disabilities*. Routledge.

Stodden, R. A., Conway, M. A., & Chang, K. B. (2003). Findings from the study of transition, technology and postsecondary supports for youth with disabilities: Implications for secondary school educators. *Journal of Special Education Technology*, *18*(4), 29-44.

Tajfel, H. (1981). *Human groups and social categories: Studies in social psychology*. Cup Archive.

Test, D. W., Fowler, C. H., Wood, W. M., Brewer, D. M., & Eddy, S. (2005). A conceptual framework of self-advocacy. *Remedial and Special Education*, *26*(1), 43–54.

Thompson-Ebanks, V., & Jarman, M. (2018). Undergraduate students with nonapparent disabilities identify factors that contribute to disclosure decisions. *International Journal of Disability, Development and Education*, 65(3), 286–303. https://doi.org/10.1080/1034912X.2017.1380174

Thoma, C., & Getzel, E. (2005). "Self-determination is what it's all about": What post-secondary students with disabilities tell us are important considerations for success. *Education and Training in Developmental Disabilities, 40*(3), 234-242.

Thoma, C. A., & Wehmeyer, M. L. (2005). Self-determination and the transition to postsecondary education. *Going to college: Expanding opportunities for people with disabilities*, 49-68.

Trammell, J., & Hathaway, M. (2007). Help-seeking patterns in college students with disabilities. *Journal of Postsecondary Education and Disability*, *20*(1), 5–15. https://www.ahead.org/publications/jped%0Ahttps://eric.ed.gov/?id=EJ825757

U.S. Department of Education Office for Civil Rights. (2011). *Students with disabilities preparing for postsecondary education*. Retrieved from https://www2.ed.gov/about/offices/list/ocr/transition.html.

Urbano, R. C. (2013). *Using secondary datasets to understand persons with developmental disabilities and their families*. Academic Press.

Ward, M. J. (2005). An historical perspective of self-determination in special education: Accomplishments and challenges. *Research and Practice for persons with Severe Disabilities*, *30*(3), 108-112.

Wehmeyer, M. L. (1995). The Arc's Self-Determination Scale: Procedural Guidelines.

Wehmeyer, M., & Schwartz, M. (1997). Self-determination and positive adult outcomes: A follow-up study of youth with mental retardation or learning disabilities. *Exceptional Children*, *63*(2), 245-255.

Wehmeyer, M. L. (1999). A functional model of implementing instruction. *Focus on Autism and Other Developmental Disabilities*, *14*(1), 53–61.

Wehmeyer, M. L., & Palmer, S. B. (2003). Adult outcomes for students with cognitive disabilities three-years after high school: The impact of self-determination. *Education and training in developmental disabilities*, 131-144.

Wehmeyer, M. L., & Field, S. L. (2007). *Self-determination: Instructional and assessment strategies*. Corwin Press.

Wehmeyer, M., Palmer, S., Shogren, K., & Seong, Y. (2014). The Arc's Self-Determination Scale-Short Form Post-Secondary Education Version Procedural Guidelines.

Zapata, M. A. (2020). Disability Affirmation Predicts Employment Among Adults with Visual Impairment and Blindness. *Rehabilitation Counseling Bulletin*. https://doi.org/10.1177/0034355220957107

Zimmerman, M. A. (1995). Psychological empowerment: Issues and illustrations. *American Journal of Community Psychology*, *23*(5), 581-599