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Self-advocacy for postsecondary students who use mobility aids

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THE ROLE OF SELF-ADVOCACY FOR POSTSECONDARY STUDENTS WHO USE MOBILITY AIDS

By

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DEDICATION

This dissertation is dedicated to Ed, Rafferty, and Radley for their encouragement, love, and patience.

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To my husband, Ed Richardson – his selfless support made this possible! You never gave up on me or this degree.

To my red-headed boys – Rafferty and Radley - who shared enthusiasm and snacks while they played, and I wrote.

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THE ROLE OF SELF-ADVOCACY FOR POSTSECONDARY STUDENTS WHO USE MOBILITY AIDS

Abstract

By Erin M. Moore

University of the Pacific
2021

Students who use mobility aids add to the diversity of postsecondary institutions. They provide a unique and important lens on postsecondary campuses. When students who use mobility aids arrive on campus, they need to ensure they have access to classes, services, and resources on campus. Because of their varied needs and varied access from campus-to-campus, students who use mobility aids must advocate for themselves so their needs are met. This phenomenological study examined the role of self-advocacy for postsecondary students who use mobility aids.

Five postsecondary students who use wheelchairs were interviewed using a semi-structured interview process that asked questions about self-advocacy and experiences within the postsecondary environment as students who use mobility aids. Data analysis included bracketing of researcher influences on the data, writing descriptions of participant experiences, and horizontalization. The following themes emerged from the data analysis process: Effects of disability on education, Effective and ineffective access, Uses of self-advocacy, and Knowledge for self and others. Findings revealed that the educational pursuits of the study participants were often affected by their disability because of campus access and attitudes of faculty and peers, which made self-advocacy a necessary skill to use while pursuing their education.

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PROLOGUE

The topic for this dissertation came from a microaggression that I experienced when I was moving between classes on day during my doctoral program. I am a wheelchair user, and I was heading down a narrow hallway. Another person started coming from the opposite direction, and the hallway was not wide enough for both of us. When I noticed that the other person was continuing in my direction, I decided to back up since there was no room to turn in the hallway. As the person moved closer to me, they started making a beeping noise as if I was a bus, garbage truck, or construction vehicle. The person then said, "I do that to my students all of the time" indicating that they make backup beeping noises for children. I immediately smirked and moved on; however, I was bothered. I immediately thought of the students this individual worked with and what students were learning about how they deserve to be treated as students with disabilities. This also sent me into a reflection of my own experiences as a student and educator who uses a wheelchair.

The onset of my disability was during my undergraduate degree, and I recall numerous interactions with peers, faculty, and staff that were highly supportive and encouraging. On the other hand, I recall many experiences that were marginalizing and placed me in awkward positions. I recall instructors assigning me a seat in class which they did not do for my nondisabled peers, or another professor who knew me prior to my disability greeted me by asking "What the hell happened to you" when I entered their class three months post-injury. I remember the feeling of isolation when I needed to use the door on the opposite end of the building from everyone else. These experiences are still vivid for me and were an asset to building connections with participants for this study. I could relate to many of their experiences and empathize with their feelings about their experiences.

Because of my experiences as a postsecondary student who uses a mobility aid, bracketing my experiences was essential throughout the study. The experiences shared throughout this study are the experiences from my participants. Although I can relate to their experiences, they are not mine. Unlike my participants, I never used disability services because I did not think I was disabled enough to need services. This study forced me to look at my own internalized ableism that I had when completing my undergraduate degree and continue to process in my educational and career aspirations. Through this study, I have been able start understanding self-advocacy from a variety of angles instead of just something students with disabilities need during their education and in the workplace. Self-advocacy has potential uses while sometimes being contentious for students with disabilities. Furthermore, participants' experiences have given me a new lens on what it means for students with mobility aids to advocate for themselves and succeed in the postsecondary environment.

CHAPTER 1: INTRODUCTION

As more and more students with disabilities enroll in postsecondary education in the United States, campuses' demographics are becoming more diverse (Hunt & Hunt, 2004; Snyder & Dillow, 2012; "New Movement", 2013). Between 88% and 99% of postsecondary institutions report that students with disabilities attend their institutions (Raue & Lewis, 2011). According to the Radwin et al. (2018) with the American Association of Community Colleges (AACC), 20% of students attending community colleges have a disability, and 17% of students attending four-year institutions have a disability. Because of federal laws such as Section 504 of the 1973 Rehabilitation Act and the Americans with Disabilities Act, and technological and medical advances, students with disabilities have better access to postsecondary education than in prior decades (Garland, 2015; Hunt & Hunt, 2004). Despite advances in laws, technology, and access, students with disabilities still face a variety of barriers and challenges on campus (Cory, 2011), including "marginalization and exclusion" ("The New Movement in Disability Education and Advocacy," 2013, p. 103). In addition to physical barriers and stigma, students with disabilities beginning postsecondary education face an entirely new environment in which they "must self-identify, undergo assessment, and seek services" (Daly-Cano, Vaccaro, & Newman, 2015, p. 214). In other words, students with disabilities must advocate for their needs.

Background

While similar barriers and challenges exist for many students with disabilities, barriers and challenges are also distinct because no students experience the phenomena of disability the same. Mobility disabilities also known as physical disabilities, specifically disabilities that require use of a mobility aid, are one type of disability that affects a student's ability to navigate campus, services, classrooms, campus events, and resources while the student faces the challenges of academic and social stigma, and self-advocacy. Students with mobility disabilities experience challenges and barriers common for all students with disabilities while experiencing challenges and barriers specific to their disability. In addition to the academic and social stigma faced by students with disabilities, students who use mobility aids may also face their own challenges such as activities of daily living (ADLs) like hygiene, physical therapy, other self-care, and cleaning. Additional challenges include time management resulting from scheduling professionals to assist with personal care, chronic pain, and fatigue (Aamlid & Brownfield, 2019; Asbjørnslett & Hemmingsson, 2008; Olkin, 2002). Furthermore, physical barriers like narrow doorways, inaccessible residence halls, and minimal elevator access deter students with mobility disabilities from attending specific institutions (Aamlid & Brownfield, 2019; Titchkosky, 2008; Wessel et al., 2015). Consequently, Emrey (1999) identifies students with mobility disabilities as an “at-risk” population who “are suffering in silence” (p. 85).

Establishing the number of students with mobility disabilities seeking postsecondary education is challenging since different definitions alter data (Gronvik, 2009). In addition, most data identifying students with disabilities comes from campus disability services. Students with mobility disabilities often do not register with campus disability services (Barnard-Brak et al., 2010; Getzel, 2014). Scott (2019) explains that some students do not have the skills and knowledge to request services while others feel that accommodations would be perceived as an unfair advantage. Overall, students in Scott’s study (2019) discussed the process of registering with disability services was time consuming and tiring. Even with a limited number of students with mobility disabilities self-identifying their disability on campus, 76% of institutions report enrollment of students with mobility disabilities (Raue & Lewis, 2011). Furthermore, data from the study by Radwin et al. (2018) found that students with orthopedic or mobility disabilities were represented in the top five disability categories requesting services (2018).

For many of these students, the postsecondary setting may be the first time they need to self-advocate in an educational setting (Kraglund-Gauthier et al., 2014) or any setting at all. Their background and onset of disability affect their familiarity with self-advocacy. Some students received accommodations in the K-12 educational setting. Their teachers and family members acted as advocates because of the Individuals with Disabilities Education Act (IDEA) (Eckes & Ochoa, 2005; Kraglund-Gauthier et al., 2014; Lyman et al., 2016). IDEA specifies that individuals working in an institution are responsible for identifying students with disabilities for special education services (Eckes & Ochoa, 2005, p. 9). Students in K – 12 education do not need to self-disclose their disability or advocate for services since teachers are provided with information about the student's disability and accommodations. In other cases, the mobility disability and use of a mobility aid may be new for some students depending on the onset of disability, like those who are diagnosed later in life with a neurological disorder, spinal cord injury, amputation or other ailment affecting mobility. Some students may transition from one mobility aid to another. For instance, a student may transition from using a walker to a wheelchair or vice versa, because of how a specific disability progresses or treatments related to the disability. Students "who acquired disabilities later in life … might be unsure of what they need to succeed in college" making self-advocacy within an unfamiliar environment challenging, even foreign ("Understanding Campus Complexity," 2013, p. 57 – 58). Likewise, a student transitioning from one mobility aid to another will have changing needs based on the mobility aid. Thus, students with disabilities have varying levels of self-advocacy skills based on their K – 12 educational experiences and the onset of their disability (Daly-Cano et al., 2015;

"Understanding Campus Complexity," 2013). When students with mobility disabilities attend post-secondary institutions, they must initiate requests for services, thus engaging in a form of self-advocacy that may be unfamiliar.

Postsecondary institutions are not governed by the requirements of the IDEA like K - 12 institutions. Instead, postsecondary institutions follow Section 504 and the Americans with Disabilities Act (ADA), which both "prohibit institutions from seeking information on disability status" (Eckes & Ochoa, 2005, p. 9). In other words, postsecondary institutions are not responsible for identifying students with disabilities. That responsibility falls on the student to disclose instead of the institution to identify.

In order to receive accommodations to meet their needs, students with disabilities must disclose their disabilities to a disability services office on campus and in many cases their instructors. Part of disclosing their disability and determining accommodations may include documentation of the disability and previous services received, on-campus assessments, and repeated visits to the disability services office. For many students, this is the first time they have had to self-advocate and initiate the process to receive services and work with college officials to ensure the delivery of appropriate accommodations and modifications (Daly-Cano et al., 2015; Kraglund-Gauthier et al., 2014; Lindstrom et al., 2009; Lynch, & Gussel, 1996; Mole, 2013; Test et al., 2005b; White et al., 2014). The unfamiliarity with self-advocacy as well as institutional practices and policies further marginalizes students with disabilities (Griffen & Tevis, 2017; "Understanding Campus Complexity," 2013).

Self-advocacy in the form of disclosure places students in a vulnerable position since comfort with disclosure is often impacted by the attitudes of "faculty, staff, and other students" (Lynch & Gussel, 1996, p. 353). Trammell (2009) points out that self-disclosure puts students at greater risk on a number of levels, possibly being subjected to negative stereotypes associated with disability, inaccurate assessments of their ability to complete college level work, inappropriate judgment by peers, lack of accommodations outside of the classroom, or even increased likelihood of self-doubt and academic anxiety. Furthermore, students may avoid self-advocating because advocacy brings attention to their disability (Emrey, 1999; Finnis et al., 2014). Mole (2013) explains that when students must self-identify their disability and needs, they are engaging in a different process and "treatment" than their nondisabled peers (p. 64). These risks and unfamiliarity with the processes "can lead students to feel like they do not fit in with others, which can then lead to more serious feelings of insecurity, depression, and extreme self-consciousness" ("Understanding Campus Complexity," 2013, p. 59). While disclosure is currently the best method for ensuring reasonable accommodations are made, it places students in an isolating and highly uncomfortable position. Students do not know what to expect when disclosing their disability.

Some students with a mobility disability have a visible disability that is easy for peers and teachers to see because the student may use mobility assistive devices like a wheelchair, a scooter, braces, crutches, or a cane. Not all mobility disabilities require use of a mobility device though. Other mobility disabilities may not be visible until the student is seen walking or needs to request an accommodation for adaptive equipment or extra time for a test because of motor skill function. Regardless of the type of mobility disability, students must also disclose their disability and needs in order to receive accommodations. Unfortunately, this disclosure and opportunity for self-advocacy is sometimes hindered by buildings with limited access (Harris et al. 2012; Myers et al., 2014; Scott, 2019), or inadequate opportunities for transportation to campus (Wehman et al., 1999). Furthermore because of the visibility of mobility disabilities, students often experience other barriers to advocacy that include violations of privacy and overcoming the belief that they have other disabilities that may affect their social and cognitive interactions (Olney, & Brockelman, 2005) which makes students feel self-conscious about their disability and accommodation needs (Rice et al., 2004; Yssel, et al. 2016). However, Olney and Brockelman (2005) discuss that when students with visible disabilities disclose their needs, they reduce feelings of stigmatization.

Description of the Research Problem

While the number of students with disabilities on postsecondary campuses is rising, attitudes and reactions to individuals with disabilities are often misinformed and inappropriate. Hunt and Hunt (2004) explain, "People still succumb to myths and misperceptions about people with disabilities" (p. 268). Consequently, students with disabilities continue to face stigma, poor levels of accommodation, and physical barriers that significantly limit their access to the same postsecondary educational opportunities of their nondisabled peers (Black et al., 2015). Stigma places students with disabilities at a high risk of not completing their program of study and earning their degree. (Lyman et al., 2016; Mamiseishvili & Koch, 2012; Trammell, 2009). This in turn affects the employment of individuals with disabilities.

Disability affects students from varying socio-economic classes, racial and ethnic backgrounds, geographic locations, and ages (Tevis & Griffen, 2014); thus, it is part of campus diversity ("New movement," 2013; Shallish, 2017). Even though this population is increasing on postsecondary campuses (Hunt & Hunt, 2004), many researchers assert that disability is not discussed within postsecondary environments, and students with disabilities, including mobility disabilities, have a limited presence in academic research (Gelbar et al. 2015; Griffen & Tevis, 2017; Shallish, 2017; Tevis & Griffen, 2014; Trammell 2009). Leake and Stodden's (2014) examination of articles about postsecondary students with disabilities found that 68 out of 906 peer-reviewed articles published between the years of 1982 and 2012 discussed “social issues for [students with disabilities] in higher education” (p. 403). Thirty of those 68 articles were published between 2007 and 2012. Gelbar et al. (2015) made a similar observation when they searched 615 articles from 1955 – 2012 for studies involving students with disabilities. Most of those articles were written between 2007 and 2012 with 21 of those studies specific to postsecondary students with physical disabilities, and the sample size of students with physical disabilities was often small (Gelbar et al. 2015). While postsecondary education is vital for individuals with disabilities, it is overlooked within research and within institutions themselves.

Campuses are required to provide access for students with disabilities per Section 504 and the Americans with Disabilities Act (ADA) (Aquino & Bittinger, 2019; Cory, 2011; Fowler et al., 2018; Kelepouris, 2014; Lamb, 2014; Nielsen, 2012; Singh, 2019). Often, access for students is reactive through providing accommodations instead of proactive by removing the barriers that demand accommodations. Students must have barriers addressed through requesting accommodations by advocating with campus disability services. Funding for disability services is minimal - averaging roughly $250,000 per institution per year (Dolmage, 2017). Morningstar and Shoemaker (2018) explain that caseloads in disability services can be as many as 250 to 300 students per advisor. Limited funding and overwhelming caseloads reinforce that disability is overlooked in higher education.

Even though self-advocacy is documented as an essential skill for the postsecondary success of students with disabilities (Mamiseishvili & Koch, 2012; Palmer & Roessler, 2000; Lynch & Gussell,1996), minimal research discusses self-advocacy for students with disabilities within a postsecondary setting (Gelbar et al. 2015). Daly-Cano et al. (2015) found that little research details how students with disabilities learn self-advocacy skills while no data exists explaining whether or not first-year postsecondary students use self-advocacy skills. Poehls (2009) also demands more studies focusing on self-advocacy, and Pillette (2019) identifies self-advocacy as an "[area] of weakness in students' career development" (p. 7) which begins in a post-secondary setting.

The National Organization on Disability specifies education as one of the eight key areas of life in which students with disabilities are "'somewhat' or 'very far' behind" their nondisabled peers (Zabrieskie et al. 2005, p. 177). Hebert et al. (2014) notes that the college graduation rate for students with disabilities is 20% lower than that of their nondisabled peers. Education influences many of the other key areas of life listed by The National Organization on Disability like employment, income, and socialization. Individuals with disabilities, including those with mobility disabilities, fall behind their peers in all these areas (Zabriskie et al. 2005). Hedrick et al. (2012) explain that "educational disadvantages may transfer into employment and economic disadvantages that are lifelong and more limiting than the actual disability itself" (p. 161). In fact, regardless of degree attainment, Pillette (2019) points out students with disabilities "are not seeing the same rates or levels of employment as their non-disabled peers" (p. 4). Thus, educational opportunities, including knowledge of self-advocacy skills is paramount for students with experiencing the phenomena of mobility disabilities within the postsecondary setting.

Purpose of the Study

The purpose of this study was to understand the lived experiences of students who use mobility aids and the way in which they advocate for themselves. The study was guided by the following questions:

1. What are the lived experiences of postsecondary students who use mobility aids during their postsecondary education?
2. What are the experiences postsecondary students who use mobility aids have with self-advocacy in the postsecondary setting?
3. In what ways do postsecondary students who use mobility aids interpret their experience with self-advocacy in their postsecondary education?

Significance of Study

Self-advocacy is often overlooked by K-12 and postsecondary institutions as a skill to help students with mobility disabilities reach their educational goals. Students with mobility disabilities receive little to no opportunity to learn or practice self-advocacy within a K-12 setting. Some students experience their mobility disability later in life, either before they decide to seek postsecondary education or during their postsecondary experience. Therefore, students with mobility disabilities, specifically those who use mobility aids, arrive on postsecondary campuses without necessary skills to help them advocate for themselves within multiple settings of their institutions in order to complete their course of study. Implications for self-advocacy have the potential to affect many areas of life for students with mobility disabilities including achieving educational and employment goals while informing K-12 curriculum, post-secondary policies and procedures, and even physical and occupational rehabilitation services. This research also includes information that will be useful to postsecondary faculty, staff, and administration when working with students who use mobility aids as well as scholars studying postsecondary students with disabilities. In addition, information from this study could be used to inform the medical field, especially rehabilitative professionals. While this study carries significance for students with mobility disabilities, it may also inform work with other at-risk populations in establishing self-advocacy as a bridge to educational and personal pursuits.

Crip Theory: A Theoretical Lens

A theoretical lens offers a perspective through which to view research. In a phenomenological study, a theoretical lens, or framework, is intended to be questioned instead of applied absolutely. In fact, Vagle (2016) asserts that using a theoretical lens for a phenomenology is acceptable as long as the theory is approached with questioning and the researcher understands how the theoretical framework may affect the phenomenon. Through phenomenology, theory is meant to be challenged (van Manen, 2016). Crip theory, from the work of Robert McRuer, is a new lens with which to explore disability. It is grounded in the social model of disability, which establishes that society presents barriers to the individuals with disabilities by demanding that those with disabilities achieve “normalcy” (Davis, 2013; McRuer, 2013). Furthermore, it establishes that the expectation of people with disabilities is to engage in society like nondisabled counterparts, which reinforces ableism and suggests inferiority of people with disabilities thus driving stigma (Linton, 2006; McRuer, 2006). In fact, McRuer (2006). Crip theory reinforces that able-bodied notions are at the heart of modifications and adaptations to accommodate individuals with disabilities. In other words, these accommodations, including those within a postsecondary environment, perpetuate that the individual with the disability must seek opportunities to be normalized, and this attitude “has invariably been oppressive to people with disabilities” (McRuer, 2006, p. 85). Crip theory offers a lens to view and explore the phenomenon of postsecondary students who use mobility aids.

Transformative Paradigm

Mertens' transformative paradigm and McRuer's crip theory connect because both are heavily focused on social justice and including the voices of underrepresented communities. Transformative paradigm addresses the need for evaluating systems of power that create inequities for marginalized communities, like people with mobility disabilities (Mertens, 2007). This paradigm is rooted in social justice and creating change. It also highlights the importance of hearing from members of the community being studied. Postsecondary education and gainful employment are closely linked, and postsecondary students with mobility disabilities are less likely to complete postsecondary programs and attain gainful employment when compared to their nondisabled peers. The transformative paradigm promotes developing an understanding of the experiences postsecondary students who use mobility aids have with self-advocacy in the postsecondary environment in order to develop a plan for creating change that offers equitable processes and opportunities for postsecondary students with mobility disabilities.

Definition of Terms

Ableism: "Society's pervasive negative attitude about disability … often makes the world unwelcoming and inaccessible for people with disabilities" (Hehir, 2017, p. 8).

Accessibility: Accessibility is a person's "access into buildings and premises and availability of support services, such as attendant care, technical aids, or assistive devices, [and] also the attitudes of others toward disabled people" (Carpenter & Readman, 2006, p. 140).

Accommodation: The Americans with Disabilities Act establishes that institutions must make reasonable accommodations in educational settings - adjustments to the physical environment and classroom and academic policies and practices like exams and assessments. In postsecondary education, the student with the disability must advocate for accommodations with the campus' disability services department and disclose accommodations to instructors and other campus personnel as needed (Bernard-Brak et al. 2010).

Acquired Disability: "Disabilities that occur later in life" (Reinschmiedt et al., 2013, p. 4).

Congenital Disability: "Disabilities that occur at birth" (Reinschmiedt et al., 2013, p. 4).

Physical Disability or Mobility Disability: Physical disability or mobility disability are "the restriction of activity caused by impairments, for example, the loss of a limb, involuntary movements, loss of speech or sight." (Carpenter & Readman, 2006, p. 131).

Self-advocacy: Hartman (1993) asserts that self-advocacy "means that the student understands his or her disability, is as aware of the strengths as of the weaknesses resulting from the functional limitation imposed by the disability and is able to articulate reasonable need for academic or physical accommodation" (as cited in Lynch & Gussel, 1996, p. 354).

Self-determination: "Self-determination is a combination of skills, knowledge and beliefs that enable a person to engage in goal-directed, self-regulated, autonomous behavior. An understanding of one's strengths and limitations together with a belief in oneself as capable and effective are essential to self-determination" (Field, et al., 1998, p. 10).

Stigma: "Stigma can be defined broadly as social devaluation based on a discrediting identity or difference" (Bogart & Dunn, 2019, p. 654).

Chapter Summary

When enrolling in postsecondary education, students are entering an unfamiliar environment in which they must advocate for themselves often for the first time in their educational experience. For students with disabilities, they need to learn how to navigate a new system of processes, forms, and documentation. They also face a variety of academic and social barriers. These barriers are true for all students with disabilities, but for students who use mobility aids, the barriers extend beyond stigma. They navigate inaccessible buildings, classroom spaces, and residence halls often while managing medical conditions and personal care. As a result, students with mobility disabilities are less likely to complete their postsecondary education than their nondisabled counterparts. Despite these challenges, students with mobility disabilities are enrolling in postsecondary education and increasing the diversity of postsecondary campuses. Unfortunately, students with mobility disabilities are not arriving on campuses with the self-advocacy skills institution demand they need to help navigate barriers and challenges in a new environment. Chapter 2 will review literature including previous studies that provide background on the processes and policies that affect students with disabilities as well as barriers students with disabilities face and an overview of the different models of disability.

CHAPTER 2: LITERATURE REVIEW

Diversity among postsecondary campuses is increasing, especially as the number of students with disabilities gain greater access to postsecondary education. Leake and Stodden (2014) recommend for disability to be viewed as "a component of diversity" (p. 400). Furthermore, disability itself covers a wide range of needs; thus, diversity exists within disability itself (Finnis et al., 2014; Leake & Stodden, 2014; Vaccaro & Kimball, 2017). Students with mobility disabilities, physical disabilities, or ambulatory disabilities represent one type of disability that enhances the diversity of a postsecondary campus. Not only do these students exhibit diversity within their individual disabilities (Agarwal et al., 2014; Leake & Stodden, 2014; Yuknis & Bernstein, 2017), they represent diverse perspectives as well as diverse needs (Agarwal et al., 2014).

The American Community Survey (ACS) by Erickson, et al. (2019) of the Cornell University Yang-Tan Institute identifies individuals with ambulatory disabilities as those who "have serious difficulty walking or climbing stairs" (p. 3). Data from this survey was used by Erickson, Lee, and von Schrader (2019) in their *2017 Disability Status Report: United States* as a part of Cornell University's Employment and Disability Institute. The data are represented in Table 2. This data note that 5.2% (approximately 9,604,200 people) of the U.S. population between the ages of 21 and 64 identify as having an ambulatory disability. This age range only represents some of those who receive postsecondary education, the other range indicated in the study is 16-20; however, those between 21 and 64 are more likely to have or pursue a postsecondary degree or certificate than those ages 12 to 20. Students in the younger age range also can qualify for educational support under the Individuals with Disabilities Education Act until they are twenty-one years of age.

Table 1
Postsecondary Completion for Disabled and Nondisabled

Population Identified	Percentage
Americans with a disability (age 21 – 64)	10.6%
Americans with an ambulatory disability (age 21 – 64)	5.4% (of those with a disability)
Americans without a disability earning an undergraduate degree or higher (age 21 – 64)	34.5%
Americans with an ambulatory disability earning an undergraduate degree or higher (age 21 – 64)	12.5%
Americans without a disability working and having earned some college or an associate degree (age 21 – 64)	31.2%
Americans with an ambulatory disability working and having earned some college or an associate degree (age 21 – 64)	31.9%

The report by Erickson et al. (2019) goes on to explain that a limited number of students with mobility disabilities pursue a postsecondary education (see Table 1). In fact, the report specifies that 12.5% (1,197,200) of individuals identified as having a mobility disability ages 21 to 64 have earned an undergraduate degree or higher. This is a stark contrast to the 34.5% of their nondisabled peers who have earned an undergraduate degree or higher. Erickson et al. (2019) also note that individuals with mobility disabilities represent the largest number of individuals within the disabled population. When considering all different disabilities represented on postsecondary campuses, Mamiseishvili and Koch (2012) point out that students with mobility disabilities represent the highest percentage of disability types pursuing postsecondary education. On the other hand, Martin (2012) asserts that over two million undergraduate students have a disability, and of those 15% have a physical disability (as cited in Burwell et al., 2015, p. 294). Regardless of the discrepancy among the data identifying the number of postsecondary students with mobility disabilities, students with mobility disabilities are not likely to complete their educational goals (Mamiseishvili & Koch, 2012). Data from the ACS supports this in establishing that "individuals with ambulatory disabilities have a slightly higher rate of some college or an associate degree with 31.9%" than their nondisabled peers (Erickson et al., 2019). This indicates that students with mobility disabilities have begun pursuing an undergraduate degree, but they are less likely to complete a degree program than nondisabled students.

The reasons students with mobility disabilities do not graduate are varied. Students often arrive on postsecondary campuses unfamiliar with institutional practices and policies (Lynch & Gussel, 1996). In addition, they lack familiarity with how to advocate for their needs (Bauman et al., 2013; Daly-Cano et al., 2015). For many students, their K-12 teachers or parents advocated for them (Garrison-Wade, 2012); for other students, their disability may be new, so they may be unfamiliar with the concept of self-advocacy altogether (Daly-Cano et al., 2015; Lynch & Gussel, 1996). This literature review will explain the distinctions between K – 12 and postsecondary education for students with disabilities, describe stigmas that affect students with disabilities, and discuss self-advocacy as a tool for postsecondary students who use mobility aids.

An Overview of Physical Disabilities

Physical disability, mobility disability, mobility impairment, physical impairment, and ambulatory disability all fall within the same concept or definition. The US Census Bureau identifies ambulatory disability as the inability to walk or climb stairs (Erickson et al., 2019). Carpenter and Readman (2006) clarify that a physical disability "can be defined as the restriction of activity caused by impairments, for example, the loss of a limb, involuntary movements" (p. 131). The disability can be the result of an "orthopedic limitation" or "medical accommodation" (Davis, 2011, p. 7) and can be acquired after birth or congenital (identified at birth). Some of the specific disabilities described by Carpenter and Readman can affect an individual's ability to walk or climb stairs; however, Low (1996) explains that mobility disabilities involve much more than a student's ability to "climb stairs or walk across campus" (p. 237). Carpenter and Readman (2006) further explain that physical disabilities can present other challenges, like "poor coordination, poor posture, physical discomfort, muscle spasms, difficulty holding or manipulating a pen or a book" (p. 142). As Davis (2011) and Field et al. (1998) point out, physical disabilities can affect a student's ability to navigate a campus or classroom which in turn can limit a student's educational experiences and opportunities. All of these factors make participating in the campus community and navigating a nondisabled world challenging (Dirth & Branscombe, 2017). Thus, physical disabilities come in many forms and impact student learning differently depending on the individual and the disability.

Varying Disabilities and Varying Needs

Students with physical disabilities arrive on campuses with a variety of diagnoses and a variety of needs (Wessel et al., 2015). Mobility disabilities include disabilities that are both congenital and acquired (Davis, 2011). Some of these congenital and acquired disabilities include muscular dystrophy, cerebral palsy (Brieland, 1967; Garland, 2015; Wessel et al., 2015), spina bifida, or a spinal cord injury (Wessel et al., 2015). Each of these congenital and acquired disabilities differs from student to student. Milsom et al. (2006) explain that some students with physical disabilities experience “generalized weakness of the skeletal muscles or difficulties with manual dexterities” (p. 11). Differences in types of disability require individual accommodations. Students using wheelchairs have distinct needs from students who use a cane. In addition, students with the same disability diagnosis may have different abilities and needs (Hill, 1992; Garland et al., 2015; Milsom et al., 2006). For instance, two different students with spinal cord injuries, or each with cerebral palsy, or spina bifida are affected differently by their disability; therefore, their needs will be distinct from one another. Some students may have specific needs relating to their ability to navigate a classroom or campus while other students may have specific needs relating to their ability to physically sit or write for long periods of time. Ability and accommodation needs also depend upon the onset of the disability.

While some students may have been disabled all of their lives, a physical disability may be new for other students. The onset of disability is another way in which the needs of students with physical disabilities vary from student to student (Agarwal et al., 2014; Daly-Cano et al., 2015; Finnis et al., 2014; Milsom et al, 2006). Onset of disability can affect the level of comfort a student has with requesting accommodations or modifications as well as the level of understanding of the accommodations or modifications (“Understanding Campus Complexity,” 2013). Students with early onset of disability and students adjusting to a new disability may also have different needs altogether, even if their disabilities are similar (“Understanding Campus Complexity,” 2013).

Regardless of the type or onset of disability, Davis (2011) explains that mobility disabilities affect students in different ways, and while some students may have “limitations that impact movement,” other students may need “medical accommodations” (p. 7). Davis (2011) continues to explain that these disabilities affect a student’s “ability to fully participate in the learning process” (p. 7) because of inaccessible classroom spaces and activities as well as stigma. Low (1996) furthers this idea by explaining the importance of time and how some students may not be able to rush to their next class because of their mobility. Ultimately, as Low (1996) points out, the time and energy needed for some students with physical disabilities to get to class affects their ability to participate in higher education. The impact of a physical disability is the result of a system that requires self-advocacy and self-awareness to determine appropriate accommodations.

Elements and Uses of Self-Advocacy

Self-advocacy involves a person’s ability to identify and express personal needs and speak up for those needs to be met (Buchanan, 2006; Chapman et al., 2011; D’Alessio & Osterhold, 2018; Douglas, 2018; Field et al., 1998; Garner & Sandow, 1999; Izzo & Lamb, 2003). Self-advocacy involves more than just a person’s ability to speak though. Daly-Cano et al. (2015) insist that students with physical disabilities need both “self-awareness and coping strategies” in order to self-advocate (p. 218). Likewise, individuals first need to have familiarity or self-awareness of their own abilities, needs, and rights along with the ability to communicate, negotiate, compromise, persuade and listen throughout the process of self-advocacy (Douglas, 2018; Field et al., 1998; Izzo & Lamb, 2003; Leake et al., 2005; Test et al., 2005; Vaccaro & Kimball, 2017). Field and colleagues (1998) further explain that students with physical disabilities need to use “negotiation, assertiveness, and problem solving” (p. 45) when practicing self-advocacy. In addition, they need to have knowledge of disability rights while understanding the ways in which their needs relate to disability law (Lynch & Gussel, 1996; White et al., 2014). Palmer and Roessler (2000) emphasize that students must have familiarity with "requesting accommodations" while also recognizing that they may need help solving problems when policies are unclear or nonexistent (p. 39). Overall, self-advocacy is a decision-making process that allows students to become active, engaged, and independent in their learning (Douglas, 2018; Fiedler & Danneker, 2007; Gragoudas, 2014). Students must make decisions about whether to advocate or solve problems on their own, and decisions about how to advocate and approach different self-advocacy situations.

Self-Determination

Self-advocacy is a primary component of Wehmeyer's theory of self-determination. Self-determination "has been proven to be an essential component of successful transition to higher education and student success once enrolled" (Madaus, 2011, p. 10). It highlights the "skills and attitudes" students with disabilities need in order to take control of their pursuits (Field et al, 2010, p, 10). These skills and attitudes include creativity, motivation, goal setting, and self-advocacy. Field et al. (1998) describe self-determination and self-advocacy as "intertwined concepts" (p.10), and Angell et al. (2010) explain that self-advocacy furthers students' self-determination. While self-advocacy is one element of self-determination, it is a core component to self-determination that directly affects the other skills and attitudes involved in self-determination. Some components of self-determination directly relate to self-advocacy like self-awareness and independence. While self-determination is important to the success of students with disabilities, most studies have focused on students with cognitive and learning disabilities (Denney & Daviso, 2012; Getzel & Thoma, 2008), not students with physical disabilities.

Elements of Self-Advocacy

In order to advocate successfully for themselves, students must have knowledge and understanding of their disability and how it affects them, and effective communication skills. Students must exhibit self-knowledge before they advocate for themselves (Lynch & Gussel, 1996; Summers et al., 2014; Test et al., 2005; Walker & Test, 2011). Self-knowledge involves the student having a firm understanding of their disability and how it affects their academic success. This includes knowledge of strengths and challenges (Lock & Layton, 2001; Summers et al., 2014). Students must also have a knowledge of their rights as someone with a disability (Field et al., 1998; Test et al., 2005; White et al., 2014). Summers (2014) also points out that students with disabilities may need a “shift in attitude” so they are open to requesting and receiving assistance in the postsecondary setting (255). Ultimately, students with disabilities must have this self-knowledge in order to identify reasonable accommodations and reasons for these accommodations necessary for their academic success.

Students must also have strong communication skills that they know how to adjust for different circumstances and when advocating with different individuals. Field and colleagues (1998) explain that students with disabilities must have the ability to negotiate, be assertive, speak up, problem-solve, and compromise in order to advocate for themselves (Field et al., 1998; Test et al., 2005; Walker & Test, 2011). Since students have different comfort-levels with these elements of self-advocacy, and the need for self-advocacy can come up in one-on-one or group settings, support and instruction in self-advocacy is important to the success of postsecondary students with disabilities.

Transitioning from K – 12 to Postsecondary Education

Kindergarten through grade twelve education and postsecondary education have different laws protecting students with disabilities. K – 12 education follows the Individuals with disabilities act (IDEA) while postsecondary institutions are guided by the Americans with Disabilities act (ADA) and Section 504 of the Rehabilitation act of 1973 (Singh, 2019). While all these laws protect students with disabilities, they are very distinct in their approaches to ensure meeting the needs of students with disabilities.

Under IDEA, students with disabilities in their K – 12 education have an individual education plan (IEP). This plan ensures that students with disabilities receive a Free Appropriate Public Education (FAPE) in the Least Restrictive Environment (LRE) (Singh, 2019). Students who have an IEP may receive services, instruction, and accommodations specific to their needs (Hadley, 2011; McFadden et al., 2015; Singh, 2019; Wessel et al. 2015). Developing and maintaining the IEP involves a support system for the student: special education teachers, general education teachers, school counselors, administrators, parents, and service providers (e.g., physical therapists, speech therapists, psychological services). Members of the support system determine what services will best meet the student’s needs; how various services are working for the student, and what changes need to be made in the IEP (McFadden et al. 2015; Shallish, 2017). In addition, students in K – 12 who have a disability or who are thought to have a disability are identified by parents and teachers.

In postsecondary education, students with disabilities must disclose their disability in order to receive supports and services, unlike K - 12 education where students are identified by parents or teachers for special education services. ADA and section 504 of the Rehabilitation Act of 1973 protect postsecondary students with disabilities from exclusion from courses, programs of study, or activities because of their disability. It also ensures that students with disabilities have the opportunity to receive reasonable accommodations (Singh, 2019). Because students with disabilities need to disclose their disability in order to receive reasonable accommodations, self-advocacy is an essential skill K - 12 students need to learn prior to entering a postsecondary program. Thus, K - 12 students must have familiarity with their disability and their accommodations. Izzo and Lamb (2003) recommend that K - 12 students participate in activities that help them build the self-awareness needed to develop self-advocacy skills. These activities include researching their disability and connecting with peers who have similar disabilities when possible.

Learning Self-Advocacy

Little is known about how students with disabilities learn self-advocacy. Poehls (2009) explains that more research is needed to determine whether K – 12 self-advocacy instruction is beneficial in the postsecondary environment. Onset of disability affects both how a student learns self-advocacy as well as individual comfort levels with self-advocacy. Students who have a congenital disability or a disability acquired during K - 12 education may have opportunities to develop self-advocacy skills during their K - 12 experience. In some cases, students may also learn self-advocacy skills in their postsecondary education. Daily-Cano and colleagues (2015) and Douglass (2018) stress the importance of K - 12 students learning self-advocacy with the support of their teachers and families and repetition in self-advocacy instruction. In order to encourage postsecondary preparation for students with disabilities in K - 12 education, the U.S. Department of Education offers funding for self-advocacy instruction to help students with disabilities transition from K - 12 to postsecondary education (Lynch & Gussel, 1996). While Hatch et al., (2009) recommend self-advocacy instruction come from the school counselor.

Fielder and Danneker (2007) recommend self-advocacy be implemented into content-area instruction. This allows self-advocacy to be seen as something to use in different areas of education instead of isolated to one specific area. On the other hand, Test et al. (2005) explain that lessons in self-advocacy are "either unknown to teachers or not taught by classroom teachers" (p. 102). Thus, opportunities for students to receive self-advocacy instruction are limited.

Self-advocacy instruction becomes even more important for K - 12 students as they approach high school graduation. Self-advocacy skills are crucial for students planning to pursue an undergraduate degree (Hatch 2009; Izzo & Lamb, 2003; Lamb, 2014; Lock and Layton; 2001; and Lynch and Gussel, 1996). In an educational setting, students with disabilities must be familiar with their disability, the accommodations that they need, and when those needs are not being met (Hatch 2009). Because students who use mobility aids may experience the onset of their disability while pursuing an undergraduate degree, they may not have the familiarity with their disability or their needs. Furthermore, many students do not have familiarity with self-advocacy when they move to higher education (Bauman et al., 2013). In other circumstances, students with a disability transitioning to higher education from K - 12 had parents, and often special education case managers advocating for them throughout their education (Burwell et al., 2015; Wessel et al., 2015). Thus, postsecondary students who use mobility aids may benefit from self-advocacy training (Angell et al., 2010; Lock & Layton, 2001). In fact, Yssel et al. (2016) explain that "an inability to advocate … created learned helplessness" (p. 389). Self-advocacy can challenge learned helplessness though. In their study of postsecondary students with disabilities, Palmer and Roessler's (2000) study results note that postsecondary students who participated in a self-advocacy and conflict resolution training felt more comfortable identifying and advocating for their needs while also having better knowledge of their rights as students with disabilities. These students also self-reported that the training helped them feel prepared to advocate for themselves.

Even though not much is known about how students learn to advocate for themselves, scholars have recommended a variety of activities to help students develop self-advocacy skills, especially in K - 12 education. In fact, Stodden et al. (2001) discuss that a limited number of postsecondary institutions offer self-advocacy training for students with disabilities. Izzo and Lamb (2003) recommend that students with disabilities write a personal self-advocacy plan that discusses their disability, strengths and challenges, activities, and instructional styles they find helpful and challenging, and accommodations that will help them succeed. This plan should also include the ways in which the student is responsible for their learning. Students are then encouraged to share their self-advocacy plan with peers, teachers, and family members. Sweeney (1995) highlights the importance of communication as part of self-advocacy. This method of instruction involves having students participate in a variety of scenarios that force the students to use different methods of communication. In the postsecondary setting, D'Alessio and Osterholt (2018) suggest having students identify goals and challenges and determine their individual strategies for self-advocacy based on their strengths, challenges, and goals. These goals, strengths, challenges, and strategies are placed into a final portfolio that also includes reflection on other elements that have had an effect on the student's education. This portfolio builds self-awareness necessary for self-advocacy. Regardless of the methods used for teaching self-advocacy, Douglas (2018) explains that support from parents and teachers is essential for students to learn and develop their self-advocacy skills.

When students advocate for themselves, they are placing themselves in a position of power, even if their request is not met. Self-advocacy leads to feelings of empowerment and belonging within the community (Field et al., 1998; White et al., 2014). Once students advocate for themselves, they are more likely to continue advocating, especially if the need they advocated for is met (Angell et al., 2010). Continued self-advocacy is directly related to the self-confidence students develop as they continue advocating (Angell et al., 2010; Chapman et al., 2011; Douglas, 2018). Students have more confidence because they have autonomy and control within their educational environment. They are ensuring that their needs are met, and when their needs are met, they feel a sense of value and belonging within the educational environment.

Self-Advocacy and Disability Disclosure

Like all students with disabilities, students with physical disabilities need to disclose their disability and their related needs to a campus disability services department to receive appropriate accommodations (Eckes & Ochoa, 2005; Garland, 2015; Getzel & Thoma, 2008; Lynch and Gussel, 1996; Rocco & Collins, 2017; White et al., 2014). Rocco and Collins (2018) refer to this as “forced disclosure” because disclosure is required for students to receive accommodations. Per Section 504 of the Rehabilitation Act, receiving accommodations also involves securing documentation that supports the student’s disability diagnosis and need for accommodations (Carroll-Miranda, 2017; Kraglund-Gauthier et al., 2014; Madaus & Shaw, 2006; Moles, 2013; Rocco & Collins, 2017). Even though students must provide documentation, Section 504 does not establish documentation requirements for postsecondary institutions (Madaus & Shaw, 2006). Individual institutions determine the requirements for documentation. In addition to documentation, students with disabilities must also describe how their disability affects their learning (Fowler et al., 2018; Singh, 2019). A counselor or caseworker in the disability services department then meets with the student to develop an appropriate accommodations plan, which must be approved by another member of the disability services department or campus disability services committee (Miller et al., 2019). This multi-step process is different from the process students with disabilities experienced in K-12 education when their needs were provided through a case manager or other educational assistant, or their parents (Garrison-Wade, 2012; Wessel et al., 2015). For postsecondary students with recent onset of disability, and even those with congenital disabilities, this is an entirely new process. The challenges of disclosure are furthered by the fact that many of these students are disclosing their disability and explaining their needs for the first time in their education (Garrison-Wade, 2012; Kraglund-Gauthier, 2014). This furthers the opportunity for students with physical disabilities to be marginalized because of the unfamiliarity with policies, procedures, and people.

Beyond the unfamiliarity, students may feel uncomfortable disclosing their disability and requesting accommodations, even students with a strong sense of self-awareness and experience with self-advocacy. Barnard-Brak et al. (2010) explain that disclosure "is more than a simple act" and receiving accommodations reinforces the "stigma about being disabled" (p. 421). Furthermore, the disclosure process is rooted in deficit thinking because it focuses on what the disabled student cannot do instead of the capabilities of the disabled student (Yuknis & Bernstein, 2017). When linked with self-advocacy, disclosure is ongoing and repeated with multiple departments and individuals on campus throughout a student's postsecondary education (Kerschbaum et al., 2017). This process is also an additional step for students with disabilities so that they can have an equitable opportunity to fulfill their academic goals. It also implies to students with disabilities that higher education was not made for them since they need accommodations in order to be successful (Carroll-Miranda, 2017; Dolmage, 2017). In other words, requesting accommodations is an unwelcoming process for students with disabilities.

Unfortunately, students with disabilities often find the processes they need to follow to receive accommodations cumbersome. Some students do not have the self-awareness to determine the best accommodations, and others have no background in disclosure since it is not often part of self-advocacy training (Scott, 2019). Students do not always know what to ask for or how to discuss their disability and needs (Scott, 2019; Yssel, 2016). Furthermore, students who do register with disability services follow the steps in the disclosure and accommodations process laid out by the postsecondary institution only to find that the approved accommodations may not meet their needs (Garrison-Wade, 2012; Kroeger & Kraus, 2017). As a result, some students with disabilities choose not to register with disability services (Carroll-Miranda, 2017). Ultimately, disability services becomes a bureaucratic structure that creates a barrier instead of a resource for students with disabilities.

Self-Advocacy and Accommodations

Once students with disabilities receive approval for accommodations with disability services, they need to continue advocating for themselves. They must disclose their disability and their accommodations to their professors (Fowler et al., 2018; Getzel & Thoma, 2008; Hadley, 2011; Lynch & Gussel, 1996; Yssel, 2016). Students with disabilities are required to disclose their disability, which may include personal information, multiple times. Barnard-Brak et al., (2010) explains that this is daunting, invasive for some, and therapeutic for others. Likewise, Garrison-Wade (2012) explains that disclosure can lead to students neglecting to receive services because of embarrassment and discomfort with the disclosure process. Barragan and Nusbaum (2017) describe that formalized disclosure with instructors regarding approved accommodations limits the opportunity to build rapport and authentic connections with faculty. In some cases, students find that developing a connection with a professor is more effective than merely providing formal documentation of the accommodation from disability services (Carroll-Miranda, 2017). In fact, some students only self-advocate with their instructors instead of formalizing accommodations with disability services (Lyman et al., 2016). Regardless, students are forced to share personal information with someone they may be unfamiliar with in order to receive accommodations (Aamlid & Brownfield, 2019; Barnard-Brak et al., 2010; Rocco & Collins, 2017; Rothman et al., 2008). Disclosure with professors must occur at the beginning of each new term with new professors so that the student can receive accommodations. Overall, requesting accommodations with instructors involves the potential for furthering stigma and barriers while creating a barrier itself through forcing students to share sensitive information in the name of self-advocacy and accommodations.

Medical and Social Models of Disability

Previous ideas about individuals with disabilities still influence how students with disabilities are served in educational settings. The medical model (table 2) of disability perceives disability as an illness or disease (Anastasiou & Kaufman, 2013; Dirth & Branscombe, 2017; Rice et al., 2004) that treatments and medications can repair or alleviate (Harbour et al., 2017; Hunt & Hunt, 2004; Nielsen, 2012; Tarzian, 2007; Thornton & Downs, 2010). This model is a deficit mindset that creates a negative view of disability thus furthering stigma and discrimination (Dirth & Branscombe, 2017; Loewen & Pollard, 2010; Olkin, 2002; Yuknis et al., 2017). The deficit mindset identifies people with disabilities as ‘abnormal’ or deficient (Gleeson, 1999) making individuals with disabilities a “minority group” (Olkin, 2002, p. 134). It focuses on the physical condition of an individual instead of the value of the individual as a person, and people with disabilities as a relevant social group (Shallish, 2017). In turn, the medical model assigns people with physical disabilities an identity as someone who is less than those without disabilities (Low, 1996). The medical model blames the person with a disability for being a problem and places people with disabilities into the position of solving the problem of their disability (Mertens, 2009). Nielson (2012) establishes that the medical model of disability drives many policies and processes within various organizations. The accommodations process within postsecondary education is based in the medical model of disability since it focuses on the student with a disability needing accommodations to create access instead of removing the barriers created by campus design and systems (Dolmage, 2017; Shallish, 2017).

The medical model implies that the person with a disability has something wrong with them that needs to be repaired. This attitude influences the charity model of disability, which assumes that people with disabilities need “help, pity, or prayer” (Kroeger & Krause, 2017, p. 217). Once more, the person with a disability is the problem instead of the barriers, including attitudes about people with disabilities. The charity model also places people with disabilities in the position of inspiring others through ordinary acts (Kroeger & Krause, 2017; Trybus et al., 2019). These attitudes place people without disabilities in positions of power and people with disabilities as dependent and helpless (Kroeger & Krause, 2017; Trybus et al., 2019). Models like the medical and charity models reinforce ideas about disability that create stigma. The medical model of disability continues to be the basis for many policies and practices about disability.

On postsecondary campuses, the accommodations process is rooted in the medical model of disability. Gabel (2010) identifies policies and processes as cultural practices, and the cultural practice of requesting accommodations reinforces that campuses were built for people without disabilities. The need for accommodations places the student with a disability in the position of being the problem, and the institution needs to accommodate or adapt to address the problem. The result is a process students with disabilities must participate in to have their needs met that nondisabled students do not have to engage in (Mole, 2013). The social model, on the other hand, places the responsibility of poor access on the institution.

The social model of disability (table 2) asserts that disability is the result of environments and attitudes that create barriers for people with disabilities. It establishes that organizations, systems, and attitudes need to be repaired, not people with disabilities (Fix & Rohrbacher, 1977; Gross & Hahn, 2004). In fact, under the social model, disability is a normal part of campus inclusion instead of normalized through processes and adaptations (Dirth & Branscombe, 2017). The social model of disability recognizes that society has created a variety of barriers for people with disabilities, and as a result, people with disabilities face inequities, oppression, and discrimination (Liasidou, 2014; Loewen & Pollard, 2010). These barriers also include systems, policies, and processes involving people with disabilities. The social model looks to challenge the systemic barriers for people with disabilities, develop a plan for removing those barriers, and create an inclusive environment (Gabel, 2010; Liasidou, 2014). In postsecondary education, these barriers are both structural, systemic, and attitudinal. The process for removing barriers must involve students with disabilities in the decision-making process in order to challenge barriers through the social model lens (Dirth & Branscombe, 2017; Mole, 2013). Participating in removing barriers creates an opportunity for students with disabilities to shape positively their own identities (Olkin, 2002). Despite the intention of establishing a supportive network and image for individuals with disabilities, the social model is in the process of being adopted in higher education. As the social model continues to be adopted, students with mobility disabilities will continue to experience barriers to their educational and career pursuits.

Table 2
Distinctions Between the Medical and Social Models of Disability

Medical Model – Disability as a deficit	Disability as illness or disease
	Disability as something that can be cured
	Disability as "abnormal" or "unnatural"
	Disability is stigmatized
Social Model	Disability results from negative attitudes of others
	Disability is environmental not personal
	Disability is celebrated as diversity
	Disability as an opportunity for inclusion

Barriers to Education

Students with physical disabilities often face barriers to their education. Often, these barriers exist because of processes and policies as well as academic and social stigma. The processes and policies, like the process students must follow to receive reasonable accommodations, are what Palmer and Roessler (2000) call "institutional resistance" because they create barriers. The institution resists making the changes necessary to create an accessible environment for students with disabilities. In turn, this creates an unwelcoming and even alienating environment for students since accessibility is not part of campus-wide design in and out of the classroom. (Mole, 2013, p. 63). Self-advocacy is needed for postsecondary students with physical disabilities because of inaccessible environments and institutional policies and practices. Self-advocacy in many cases is a reactive process (Burgstahler & Moore, 2009; O'Connor & Robinson, 1999). According to Myers et al. (2013), the level of "access and inclusion of people with disabilities provides a narrative that disability is invisible until people are forced to confront the issue due to required access laws or individual requests" (p. 103-104). The experience of Myers, a sociologist with a physical disability who describes the barriers she faced in pursuing her degree in her 2014 narrative study, supports this when she asserts that lack of access took away her independence and perpetuated the stereotype that people with disabilities are dependent because they consistently need to request accommodations from others. This constant need to request accommodation and disclose disability becomes a barrier because it forces students with physical disabilities "to take upon a much larger responsibility" which creates additional stress for the students (Scott, 2019, p. 16). These social and physical barriers prevent students with physical disabilities from reaching their educational goals (Agarwal et al., 2015). This is illustrated by a 2012 study by Mamiseishvili and Koch that shows students with physical disabilities are at an increased likelihood of dropping out sometime within the first 3 years of their postsecondary education. Self-advocacy to receive accommodations in postsecondary education is an example of a social inequity resulting from the power structures reflected within policies and procedures (Mertens, 2008). The process of self-advocacy, especially for accommodations to create an equitable learning environment, creates inequities for students with disabilities.

Physical Barriers

Physical barriers are barriers that prevent students from accessing their classes and other campus needs. Students with physical disabilities identify physical barriers as the most significant as well as the easiest to repair (Hadjikakou et al., 2010). Often, these barriers are the result of following old building codes and retrofitting physical access into campus (Davis, 2011; Dolmage, 2017). Physical barriers could be in the form of narrow doorways, limited elevator access (Myers, 2014), poorly arranged classrooms or offices, limited disability parking, or any other type of physical barrier impeding access (Scott, 2019). These barriers also come in the form of limited routes to buildings and limited accessible entrances (Low, 1996). Postsecondary institutions are responsible for providing this access and ensuring physical barriers are removed (Finnis et al., 2014). Access across campus - both outside and within buildings - sends a message to students with disabilities about the environment and can affect students' sense of belonging in the postsecondary environment (Myers, 2014; Strange, 2000). In addition to physical barriers on campus, students with physical disabilities may be late for class because of transportation, equipment malfunctions, and personal care; thus, they may miss important information presented at the beginning of class (Milsom et al. 2006). This can also create a sense of insecurity for the student with the disability and potentially damage the relationship between the student and the instructor. Myers et al. (2014) highlight this through Myers' experiences as a postsecondary student. Because of problems with the timeliness of a personal care attendant, Myers was frequently late to class. She feared that her tardiness made her appear "inconsiderate of the professor's time by interrupting the class and … classmates" (p. 80). Thus, students with physical disabilities often face barriers and stigma that affect degree completion or even enrollment in a postsecondary institution.

Students with physical disabilities enrolling in postsecondary education need to look at barriers on campus and the level at which those barriers affect independence making the process of selecting a college complicated and multi-layered for students with physical disabilities (Wessel et al. 2015). Thus, physical access to buildings on a campus and access to learning opportunities and resources plays a significant role in the decision to pursue postsecondary education and the selection of an institution (Hadjikakou et al., 2010; Wessel et al., 2015). When access is complicated or not available for students, they choose the campus with accessibility features they need, even if the accessible educational institution does not have the specific major they want (Wessel et al. 2015). In addition, Hendrick et al. (2012) found that students with physical disabilities often did not enroll in postsecondary institutions because they were worried about the quality and availability of services. Ultimately, these physical barriers limit postsecondary educational options for students with physical disabilities which in turn reduce opportunities for students with disabilities to develop self-advocacy skills (Harris et al. 2012, p. 71). This denies students with physical disabilities opportunities for their future while also limiting campuses of another diverse perspective.

Institutional Barriers

Many of the barriers that exist on campus are the result of policies and procedures within the campus department intended to support students with disabilities: Disability Services. The supports provided by disability services mostly come in the form of accommodations; however, the need for accommodations reinforces barriers to access exist on campus (Mole, 2014). Accommodations and the need for accommodations are often identified after a student with a disability has encountered a barrier affecting their education; thus, the accommodations process is reactive instead of proactive (Burgstahler & Moore, 2009; O’Connor & Robinson, 1999). The process is also difficult to change because it is founded in laws and institutional practices that demand a shift in the institutional culture and practices, not just a shift in policies (Black et al., 2015; Finnis et al., 2014). The accommodations process releases the institution from being responsible for providing access though since the student must disclose their disability and request accommodations (Dolmage, 2017). This also places the student with a disability in the position of being powerless because they need to request accommodations from campus officials who are in a position of power. In addition, some of the accommodations for students with disabilities do not meet their needs or draw attention to their disabilities. For example, students who need an accessible desk have found that the desk draws more attention to them and isolates them from their peers in class (Barragan & Nusbaum, 2017; Pearson & Samura, 2017). Students with physical disabilities request accessible desks with disability services because the desks are not readily available in classrooms.

Disability services as a department also poses its own barriers. When students work with disability services, they find themselves following a multi-step, time-consuming process. When receiving accommodations, many students with disabilities have also found that the accommodations are not helpful; therefore, their time and effort was all-for-naught. (Black, 2015). Furthermore, disability services departments are notoriously under-staffed. As a result, students do not have familiarity with other services available from the department because of limited opportunities for outreach from disability services (Dolmage, 2017; Dowrick et al. 2005). Limited staffing and poor accommodations are two reasons students with disabilities do not register with disability services. Stigma also plays a role in a student’s willingness to register with disability services, so some students refuse to register with disability services altogether (Barragan & Nusbaum, 2017). Often, stigma is driven by ableism and microaggressions.

Ableism

The stigma students with disabilities face is a direct result of ableism. Storey (2007) defines ableism as "the belief that it is better or superior to not have a disability than to have one and that it is better to do things in the way that nondisabled people do" (p. 56). Ableism on campus is influenced by attitudes and ideas about disability as well as policies and procedures related to students with disabilities. Attitudes and the policies send messages that people with disabilities are people who are lesser or who will not be able to contribute fully (Alshammari, 2017). Often, institutions do not even realize they are promoting ableism because it is so ingrained in the structures, processes, and policies of the institution (Nielsen, 2012). Postsecondary institutions reinforce ableism by sending messages that higher education is for nondisabled students, and disability is negative. They place value on nondisabled students while attention to students with disabilities is from a deficit lens (Dolmage, 2017). In other words, students with disabilities receive attention when something is not accessible, for something they cannot do, or because they need accommodations instead of respecting students with disabilities as capable members of a diverse campus community.

Ableism creates inaccessible environments that deny inclusion for people with disabilities (Hehir, 2007). As Nielsen (2012) suggests, "ableism is directed at individuals and built into social structure" (p. 128). Ableism comes through stereotypes, stigma, discrimination, and microaggressions (Olkin et al., 2019). Microaggressions are everyday comments, questions, and actions that send subtle and negative messages to a marginalized population, in this case students with disabilities (Campbell, 2020). Olkin et al. (2019) break down microaggression toward people with disabilities into categories:

- Second-class citizenship/your right to equality is denied
- Denial of personal identity/someone ignores everything about you but your disability
- Denial of disability experience/someone downplays the effects of disability on your life
- Denial of privacy/you are asked overly personal questions
- Helplessness/someone assumes you need help

Because of the visible nature of their disability, students who use mobility aids face blatant ableism through microaggressions (Trybus et al., 2018). Microaggressions set up the environment for students with disabilities to encounter social and academic stigma.

Social Stigma

Beyond physical access, students with physical disabilities also face many examples of social stigma. According to Lundberg et al. (2014), stigma and negative stereotypes affect the lives of individuals with disabilities. Bogart and Dunn (2019) define stigma as "social devaluation based on a discrediting identity or difference" (p. 654). Disability is a difference. The effects of stigma are varied depending on the individual and their disability. Since students who use mobility aids have a visible disability, they have no choice but to disclose that they are disabled. As a result, they cannot avoid stigma, which makes them vulnerable to negative experiences (Emrey, 1999). Stigma is a direct result of the medical model of disability (Olkin, 2002). It reinforces that the society is not fully inclusive for people with disabilities (Loewen & Pollard, 2010) and disability should be "hidden or avoided" (Kroeger & Krauss, 2017, p. 220). In the postsecondary setting, the negative "attitudes and assumptions about abilities and accommodations" are stigmatizing barriers for students with disabilities (Dowrick et al., 2005). The social stigma faced by students with disabilities takes many forms.

Often, the social environment on postsecondary campuses prevents students with physical disabilities from feeling welcome or comfortable with becoming involved in campus events and activities. Students with disabilities either are excluded or face situations that are not sensitive to their needs (Agarwal et al., 2014). Circumstances like his limit the opportunities students with disabilities have with others on campus (Low, 1996). The visible nature of physical disabilities often results in limited privacy for students with disabilities. Because of the visibility, many students with physical disabilities are faced with "rejecting deviant identities" others place on them because of their disability (Low, 1996). One of these identities is that students with physical disabilities are incapable, uncredible, or unable (Dowrick et al., 2005; Lundberg et al., 2011; Olney & Brockelman, 2005; Seelman, 2017). When this identity is placed on students with disabilities, it puts them in the position of having to prove themselves in different settings like establishing intelligence when meeting new people (Olney & Brockelman, 2005; Scorgie et al., 2010; Trybus, 2019). Experiences like this create a negative self-perception for students with physical disabilities (Blinde & McClung, 1997). In turn, students with disabilities find themselves in positions to overcome identities placed upon them.

These identities include the individual with a disability being seen as inspirational or in need. Cahill and Eggleston (1995) show that individuals with physical disabilities are often praised or considered remarkable for being in public. Attitudes admiring people with disabilities accomplishing everyday activities like attending classes or socializing on campus is what Nario-Redmond and Kemerling (2019) refer to as "inspiration porn." This concept gives the student with a disability an identity that suggests they do not belong and should not be capable because they are different, and their difference must be noted. It also reinforces low standards and expectations for people with disabilities (Cherney, 2019; Kroeger & Krauss, 2017). On the other hand, Nielsen (2012) explains that people with disabilities are also stigmatized when people with disabilities are seen as dependent and inferior to those without disabilities. This is another stigmatizing and ableist identity that results in people with disabilities perceived as needing pity (Cherney, 2019; Trybus, 2019). Ableist mindsets have a negative impact on self-perception of students with disabilities, as well as the perception nondisabled peers have of students with disabilities.

Identities placed on students with disabilities can result in a stereotype threat. According to Akin and Huang (2019), stereotype threat is the "fear of confirming a negative stereotype about a group to which one belongs" (p. 28). The danger of stereotype threat is that individuals will see themselves in the stereotype, which will affect their perception of themselves. Akin and Huang (2019) explain in their study that nondisabled students perceive students with physical disabilities as disruptive to the learning environment. This negative stereotype has the potential to affect how students who use mobility aids interact and participate in class for fear of being a disruption.

While accommodations are intended to create an equitable environment for students with disabilities, stigma around accommodations and disabilities becomes a barrier. Students face the assumption that accommodations equal special treatment, thus furthering discomfort with accommodations while perpetuating stigma about disability and accommodations (Scorgie et al. 2014; Scott, 2019). Furthermore, students with disabilities do not want to be perceived as different, a burden, or receiving special treatment (Black et al., 2015; Lyman et al., 2016). Stigma around accommodations makes students with disabilities uneasy about disclosing their disability with disability services (Barber, 2012; Barnard-Brak et al., 2010; Barragan & Nusbaum, 2017; Dowrick et al., 2005; Wood, 2017) because of stereotypes associated with accommodations (Rocco, 2001). Ultimately, these negative attitudes affect student accommodation requests and in turn, student access to necessary accommodations (Emrey, 1999; Palmer & Roessler, 2000; White et al., 2014). Physical barriers and social stigma influence a student's ability to meet their educational goals. Educational goals for students with disabilities are also affected by academic stigma.

Academic Stigma

In addition to social stigma from peer groups, students with physical disabilities face academic stigma. Students with physical disabilities face negative assumptions about their abilities because their disability is visible (McCune, 2001). As a result, instructors often have low academic expectations of students with disabilities (Angell et al., 2010; Myers, 2014). Furthermore, instructors have little to no familiarity with academic needs of students with physical disabilities, or instructors consider requests for accommodations to be advantageous for the students making requests instead of a method of equalizing the educational environment (Burgstahler & Moore, 2009; Carpenter & Readman, 2006; Dowrick et al., 2005; Sniatecki et al., 2015). Finnis et al. (2014) found that some instructors fear that making accommodations and modifications for students with disabilities will lower the academic standard established in the course. As a result, instructors may refuse or ignore the request for the accommodation (Carpenter & Readman, 2006; Dowrick, et al., 2005). In other cases, the student's accommodation is not kept confidential because of instructor expectations. For instance, when instructors ban laptop use in the classroom, students with accommodations may still use a laptop. This makes the student's accommodation obvious to other students in the class (Dolmage, 2017). Even academic research focusing on academic success often leaves out students with disabilities (Fichten et al., 2014). Likewise, Tevis and Griffen (2014) point out that studies focusing on the academic successes of students with physical disabilities are almost nonexistent. In other words, students with disabilities are not part of the narrative within higher education.

Isolation

Isolation for students with physical disabilities is a consequence of both academic and social stigma, and it becomes yet another barrier postsecondary students face on campus (Gabel, 2010; Zabriskie et al., 2005). Low (1996) emphasizes that the isolation experienced by postsecondary students with physical disabilities is a problem because it limits personal interactions. This isolation affects the level of belonging students feel within the educational institution. In Yssel et al.'s (2016) study, the students explain how their disability limited their personal connections with instructors and peers thus isolating the disabled student. Students need an environment in which they feel comfortable, or they "will likely fail at other goals of learning" (Strange, 2000, p. 23). Strange (2000) also associates feelings of "insecurity and exclusion" with isolating students (p. 25). Residence halls often create an isolating environment for students with disabilities. Institutions with on-campus living are required by ADA to provide accessible accommodations for students with disabilities. When students have physical disabilities, their options for on-campus living are limited, and they may be physically isolated from peers and friends. Often, students with physical disabilities cannot visit other friends in residence halls because not all residence halls need to be physically accessible for all students (Scott 2019). This furthers isolation from peers for students with physical disabilities. Isolation within the postsecondary environment limits students with physical disabilities from reaching "their full potential "and participating in the campus environment (Agarwal et al., 2014, p. 39). This isolation also exists outside of the postsecondary environment, when the individuals with physical disabilities are aware of events taking place in their communities (Zabriskie et al., 2005). Isolation in all of these forms sends messages to students with disabilities that they do not belong in higher education.

Physical access to spaces on campus also creates feelings of isolation. For instance, students with physical disabilities often find classroom access to be isolating, specifically when using the accessible desk or table in the classroom. The accessible desk or table is often notably different from all other seating in the classroom, and it is placed in a spot that is often physically away from peers (Barragan & Nusbaum, 2017). Likewise, access to buildings often creates isolation since accessible entrances may be located away from the general entrance (Low, 1996). While physical access creates opportunities for students with disabilities, it also can create isolation and stigma around students with disabilities.

Regardless of opportunities and laws, individuals with physical disabilities feel "simultaneously invisible and overly visible" (O'Connor et al., 2004, p. 211). Students in the study by Wilgosh et al. (2008) describe difficulties they had establishing social connections and maintaining relationships with their peers because of managing personal care schedules, pain-management, accessibility, social barriers, and embarrassment of abilities. Students with physical disabilities also find it difficult to make friends (Dowrick et al., 2005; O'Connor et al., 2004). In fact, O'Connor et al. (2004) explain that mobility aids create a barrier between students with disabilities and students without disabilities because of the stigma associated with using a mobility aid. This is further supported by Liasidou (2014) who explains that the attitudes of nondisabled students create isolation for students with disabilities in the postsecondary environment. Negative attitudes from nondisabled peers create feelings of isolation for students with disabilities. Overall, O'Connor et al. (2004) determine that a mobility assistive device creates a barrier between individuals with and without disabilities because of the attitudes about students with disabilities. Barriers between people create isolating experiences for students who use mobility aids.

Awareness of Resources

In addition to physical barriers and stigma, students with physical disabilities are not aware of the on-campus programs and services available to help them reach their educational goals (Lindstrom et al., 2009). High school students with physical disabilities participating in Emrey's study (1999) had not received information on postsecondary disability services, and only one of the participants had received information on rights for individuals with disabilities. Students often drop out of postsecondary institutions because of challenges with postsecondary services, and overall academic goals of students with physical disabilities were impacted by the level of services they received (Hedrick et al., 2012). This supports the assertion by Myers (2014) that when "opportunities are not present and barriers are not addressed," students with physical disabilities may not succeed in their educational pursuits (p. 84). Thus, these services are essential to students with physical disabilities' success in their academic pursuits.

Universal Design for Instruction

Universal design for instruction is based upon the 1997 Principles of Universal Design (UD) from the North Carolina University Center for Universal Design (Scott et al., 2002). Based on architectural principles, UD identifies standards that create physical access that benefits everyone (Kennette & Wilson, 2019). While the seven Principles of Universal Design focus on the physical environment, the nine Principles of Universal Design for Instruction (UDI) address creating a physically and intellectually accessible environment. Thus, UDI is about the learning space and the presentation of learning materials. It supports teaching and learning for all students through creating space and delivering curriculum to meet a wide range of abilities and needs and encourages input from students with disabilities in the design and development of UDI features (Burgstahler, 2009; Dolmage, 2017; Scott et al., 2002). Thus, students with disabilities have the opportunity to advocate for the greater disability community by providing input on campus UDI implementation. UDI removes the burden of access from the student with a disability and places the responsibility for access on the institution. Furthermore, UDI promotes being proactive in campus and course design by encouraging faculty to design course instruction - including content, materials, and assessment - with all student needs in mind to relieve the need for some accommodations which are reactive (Black et al., 2015; Burgstahler, 2009; Dolmage, 2017; Nario-Redmond et al., 2019; Scott et al., 2002). Accommodations will still be necessary for some students since many students have specific individual needs. Overall, UDI creates a welcoming environment for all students, including students with disabilities.

Overcoming Barriers

In order for students with physical disabilities to overcome the physical, social, and academic barriers, they must look to practice self-advocacy skills. Students with disabilities need self-advocacy skills to transition from high school to postsecondary education (Lynch & Gussel, 1996; Mamiseishvili & Koch, 2012). In addition, self-advocacy reduces the level of isolation for students with disabilities and assists students as they graduate and move into their careers (White et al., 2014). Thus, self-advocacy becomes “an important intervention” for postsecondary students with physical disabilities (Palmer & Roessler, 2000, p. 38).

According to the framework for self-advocacy developed by Test, et al. (2005), self-advocacy includes “knowledge of the self, knowledge of rights, communication, and leadership” (p. 45). Students need specific self-awareness and communications skills in order to make their self-advocacy effective in having their needs met. Self-awareness helps students recognize their own strengths and limitations (Angell, 2010; Test et al., 2005). This will help them determine their needs while developing accommodations and methods to meet their goals (Angell et al., 2010). Lynch and Gussel (1996) explain that students have to understand their disability and their needs while also knowing how to communicate those needs. This happens through "self-exploration" so students can become "aware of personal thoughts, feelings, and behaviors before they can actively and consistently advocate for accommodations" (Lynch & Gussel, 1996, p. 355). Likewise, White et al. (2014) discuss the importance of students understanding their rights and disability laws. Not only do students need to be familiar with themselves and their needs they also need to be familiar with the services to meet their needs and the legal obligations of the educational institutions.

Self-advocacy can become a useful tool for students who use mobility aids when practiced within the postsecondary environment. Lynch and Gussel (1996) assert that self-advocacy can be positive through helping to build relationships with instructors often through participation in new activities. A student in Finnis et al.'s (2014) study reports that self-advocacy creates a comfortable learning environment that develops collegial relationships between the student and instructors. Students who learned self-advocacy skills in Palmer and Roessler's (2000) explain that they felt more comfortable "requesting academic accommodations" and solving conflicts related to their accommodations (p. 41). These students also discuss additional familiarity with their rights and responsibilities after being taught self-advocacy skills. In addition to the benefits to students' postsecondary and career experiences, Angell et al. (2010) suggest that when students with disabilities self-advocate, they also build their self-confidence, increase their inclination to continue advocating for themselves, and continue building their self-advocacy skills.

The benefits to developing self-advocacy skills extend beyond the postsecondary environment. Field and colleagues (1998) point out that empowerment is a direct result of developing self-advocacy skills. Thus, students with a strong sense of self-advocacy begin to reflect that they "are worthy of respect and being valued, independent of issues related to ability or disability" or other factors (Field, et. al, 1998, p. 10). Angell et al. (2010) also observe that when students experience advocacy, they are more willing to participate in their own self-advocacy. In other words, students are empowered to continue advocating for themselves, which helps them be "resourceful and persistent in finding what they need" (Tevis & Griffen, 2014, p. 49). Participants in Angell et al.'s study of adults with physical disabilities (2010) identify self-advocacy as essential to success (p. 69). In all, self-advocacy skills empower students with physical disabilities to participate independently in education because they understand their needs well enough to communicate how to have those needs met. In turn, students progress toward their educational goals (Tevis & Griffen, 2014; White et al., 2014). Thus, self-advocacy is essential for the academic success of students with physical disabilities as they pursue higher education and career paths.

Chapter Summary

Self-advocacy continues to be a skill necessary for postsecondary students who use mobility aids because of barriers on postsecondary campuses. Barriers include physical barriers to campus facilities and resources as well as attitudinal barriers from peers and faculty that demonstrate ableism. Even though self-advocacy has been identified as an essential skill for students with disabilities, little is known about how students with disabilities acquire self-advocacy skills. Sometimes, students with disabilities learn self-advocacy during K – 12 education; however, some students who use mobility aids acquired their disability after K – 12 education. Upon beginning postsecondary education, students are required to self-disclose their disability to receive approved accommodations through disability services. This requires students to be familiar with their needs and to advocate for themselves. The disclosure process with disability services requires students with disabilities to engage in an additional process for equitable opportunities in their postsecondary education. Disclosure for services and accommodations is also rooted in the medical model of disability that sees the students with disabilities as problems that need repairing. On the other hand, more campuses are adopting the social model of disability. It views disability as socially constructed and encourages steps for institutions to create equitable learning environments for students with disabilities. This study explores the phenomenon of self-advocacy for postsecondary students who use mobility aids. As outlined in the next chapter, a phenomenological study is the best method for developing an understanding of the lived experiences of postsecondary students who use mobility aids.

CHAPTER 3: METHODOLOGY

Description of the Study

Self-advocacy is recognized as an essential skill for postsecondary students who use mobility aids; however, little is known about how postsecondary students who use mobility aids use self-advocacy, how they perceive self-advocacy, or how they understand self-advocacy. The purpose of this study was to understand the lived experiences of students who use mobility aids and the ways in which they advocate for themselves by answering the following questions:

The study was guided by the following questions:

1. What are the lived experiences of postsecondary students who use mobility aids during their postsecondary education?
2. In what ways do postsecondary students who use mobility aids interpret their experience with self-advocacy in their postsecondary education?
3. In what ways do postsecondary students who use mobility aids interpret their experience with self-advocacy in their postsecondary setting?

These questions were explored using the qualitative research method of phenomenology. In addition to explaining the rationale for qualitative research and phenomenology methodology, this chapter will explain participant sampling, interview structure, and data analysis process that will lead to an understanding of the lived experiences of postsecondary students who use mobility aids and how they use self-advocacy in the postsecondary environment.

Overview of Research Methods

Phenomenological research is a form of qualitative research that focuses on the lived experiences of individuals. Qualitative research seeks to gather stories of individuals (Patton, 2015). Phenomenological research gathers stories of individuals who experience a specific phenomenon in order to capture the essence of their experience with that phenomenon (Mapp, 2008; Moustakas, 1994; Patton, 2015; van Manen, 2016). The process of discovering the essence of a phenomenon includes removing the influence of the outer world (Laverty, 2003; van Manen 2016) while discovering the experiences, including the emotions, internalization, and interpretations, of those encountering the phenomenon.

Rationale for Qualitative Research

Because this study focused on a group that is under-represented in research, qualitative research methods were determined to be appropriate for this study. Tevis and Griffen (2014) point out that few accounts exist of postsecondary students with physical disabilities in research literature. They go on to discuss the importance for students with mobility disabilities to tell their stories in order to create awareness of their experiences. These stories are not at the forefront of educational research, nor are they at the forefront of studies involving students with disabilities. Through qualitative methods, students with disabilities have an opportunity for their voices to be heard (Lindstrom et al., 2009). Qualitative research is needed in this field in order to begin making the silent voices (Creswell, 2013), or absent narratives these students with physical disabilities present in research. Creswell (2013) reinforces that qualitative research creates opportunities for marginalized populations that do not receive attention in studies, like students who use mobility aids, to tell their stories.

In addition to making absent voices present, qualitative research also focuses on actual stories of real people - their stories, their circumstances, and their words. (Patton, 2015, p. 12). Understanding the experiences and journeys of post-secondary students who use mobility aids allows for greater awareness of the physically disabled community. So often, cognitive and physical abilities of students with mobility disabilities are misunderstood (Carpenter & Readman 2006; Tevis & Griffen, 2014); however, in order to ensure opportunities for students with physical disabilities, Davis (2011) points out that it is important to reveal individual stories. Even though students may appear to have similar disabilities, they may have different needs (Cory, 2011; Finnis et al., 2014; Vaccaro & Kimball, 2017). Qualitative research allows for postsecondary students who use mobility aids to share their experiences resulting in detailed information that leads to understanding (Creswell, 2013; Patton, 2013). Describing the postsecondary experiences of students who use mobility aids provides opportunities to dismantle existing negative stereotypes while reinforcing the importance of the social model of disability. It also offers a look into the hierarchies and power structures students with disabilities must navigate on campus (Shalish, 2017). Patton (2015) explains that qualitative research includes details about the relationship between the individual and organizations. Reinforcing the social model of disability while exploring the connections between the individual and organization provide details to help create equitable educational experiences and environments for postsecondary students with mobility impairments, thus emphasizing social justice (Creswell, 2013) as a foremost purpose of qualitative inquiry.

Background of Phenomenology

Understanding the history and evolution of phenomenology is important to conducting a phenomenological study (Patton, 2015; Vagle, 2016). Phenomenology challenged positivism reflected in scientific studies by replacing statistics with descriptions from human experiences (Sadala & Adorno, 2002). As a formal philosophy, phenomenology originated from the German philosopher and mathematician, Edmund Husserl in the early 20th century. Husserl sought to find the essence of things by removing interpretation of those things and capturing them in their purest form (Laverty, 2003; Mertens, 2002; Moran & Mooney, 2002; Sadala & Adorno, 2002; Vagle, 2016). He explored philosophical ideas from Descartes and Kant in developing phenomenology. Husserl appreciated Descartes' ideas behind establishing a framework for finding scientific truths within the human sciences while making philosophy an independent science (Laverty, 2003; Moran & Mooney, 2002; Sadala & Adorno, 2002). Descartes is attributed with inspiring the concept of epoché as well. Epoché means to bracket assumptions, common ideas, and biases to discover the essence of the phenomenon (Sadala & Adorno, 2002; Laverty, 2003; Moustakas, 1994; Patton, 2015; Vagle, 2016; van Manen, 2016). The practice of epoché has been closely related to Descartes' ideas about doubt as an opportunity to find out more about a thing (Moran & Mooney, 2002; van Manen, 2016). Kant also influenced Husserl's ideas about capturing the essence of a phenomenon. Although Husserl challenged Kant's ideas, Kant was one of the first philosophers to use the term phenomenology. Kant supported assumptions and interpretation of individual experiences while Husserl sought to remove outside influences like assumptions and interpretations (Moran & Mooney, 2002). Removing interpretations and assumptions from others' experiences is an essential component of transcendental or descriptive phenomenology. Husserl's transcendental phenomenology influenced many philosophers, some of whom worked with him and developed their own branch of phenomenology, like Heidegger.

Heidegger learned transcendental phenomenology from Husserl. As influenced by Husserl, Heidegger sought to understand the essence of a phenomena through phenomenology. He developed what is known as hermeneutic phenomenology. Like transcendental or descriptive phenomenology, hermeneutic phenomenology also focuses on lived experiences in order to capture the essence of a phenomenon (Creswell, 2013; Laverty, 2003; Mapp, 2008; Moran & Mooney, 2002; Patton, 2015; Vagle, 2016; van Manen, 2016). While the overall goal of transcendental and hermeneutic phenomenology is similar, the methods for arriving at the goal are distinct. Husserl prioritized bracketing as an essential component of transcendental phenomenology. Bracketing involves becoming familiar with assumptions, biases, and any prior knowledge of the phenomenon so that previous information does not influence the lived experience of an individual. Hermeneutic phenomenology, on the other hand, encourages personal interpretation of the lived experiences of an individual. In fact, Heidegger highlighted the importance of interpretation and the use of prior knowledge and experiences to construct meaning (Laverty, 2003; Patton, 2015; Vagle, 2016; van Manen, 2016). Other, more modern philosophers have continued building upon Heidegger's hermeneutic phenomenology. Some philosophers who have adopted and furthered the study of phenomenology see it as a method to bring unheard voices into research. In fact, Austrian philosopher, Alfred Schultz who studied Husserl and focused on social phenomenology, promotes using phenomenology to reflect the "diversity of human experiences" (van Manen, 2016, p. 146). Having knowledge of both transcendental and hermeneutic methods is important for researchers so that they can establish a clear foundation for how to conduct a phenomenological study (see table 3).

Table 3
Brief Background of Phenomenology

Philosopher	Type	Distinctive Elements	Influenced by	
Husserl	Transcendental or Descriptive Phenomenology	Epoché – bracketing to eliminate biases and assumptions about the phenomenon	Descartes	Concept of doubt
			Kant	Credited with first using the term phenomenology
Heidegger	Hermeneutic Phenomenology	Encourages personal interpretation of the lived experiences with the phenomenon	Kant	Supported interpretation of individual experiences with the phenomenon
			Husserl	Set the purpose of phenomenology to describe the lived experiences of individuals experiencing a phenomenon.

Rationale for Phenomenology

The phenomenon of self-advocacy for postsecondary students who use mobility aids continues building a body of research that expands a diverse perspective from an under-represented demographic. The basis in experiences and recognizing the diversity of human experience makes phenomenology ideal for studying self-advocacy for postsecondary students who use mobility aids. Moreover, transcendental phenomenology is important for this study because of the researcher's positionality.

In order to conduct a phenomenological study, Moustakas (1994) recommends that the researcher develop research questions on a topic that has both social and personal meaning. Self-advocacy for postsecondary students who use mobility aids is a phenomenon that meets both of these criteria because it carries importance both personally to the researcher and socially to the greater disability community and beyond. The social model of disability recognizes that disability is a social construction and people with disabilities face regular challenges ("Understanding campus complexity," 2013). Furthermore, as a paraplegic, the researcher has personally experienced this phenomenon. The personal experience makes this a significant topic for the researcher. Personal experience also made following Husserl's transcendental phenomenology important so that the focus is on the lived experiences of the participants, not the researcher's interpretations.

Minimal research has been conducted on postsecondary students who use mobility aids (Aamlid & Brownfield, 2019; Bredahl, 2012; Leake & Stodden, 2014) specifically research about how these students advocate for themselves. Aamlid and Brownfield (2019) encourage further research on the "lived experiences of college students with disabilities" (p. 156). More research specific to individuals experiencing this phenomenon challenges existing beliefs that come mostly from able-bodied ideas about people with disabilities ("Understanding campus complexity," 2013). A phenomenological study captures the essence of a phenomenon and how those experiencing the phenomenon "perceive it, describe it, feel about it, judge it, remember it, make sense of it, and talk about it with others" (Patton, 2015, p. 115). These details originate from interviews as stories, anecdotes, and experiences that are collected to reflect the meaning and essence of the phenomenon (Creswell, 2013; Koopman, 2017; Mapp, 2008; Moustakas, 1994; van Manen, 2016). The collection of details captures the essence of the phenomena in order to offer an understanding of the phenomenon, which as Patton (2015) says moves toward a "worldview." A phenomenological study recognizes students with mobility disabilities as a group, which is part of a worldview, a group that has a voice. It honors and respects that their experiences provide significant opportunities for learning and understanding of a phenomenon.

Researcher Positionality

As someone who lives with paraplegia, the researcher has experienced the phenomenon of being a postsecondary student who uses a mobility aid in undergraduate, graduate, and doctoral studies. The onset of the researcher's disability during undergraduate studies and experience as a postsecondary student who uses a wheelchair as well as twenty years of work in education (primarily in K - 12 schools and community colleges), research, and reflections have shaped the researcher's thoughts on self-advocacy, especially as it relates to students with disabilities. In addition, the researcher has regularly practiced self-advocacy specifically related to use of a wheelchair in the classroom, on campus, and in daily life. Some situations have forced the researcher to choose whether to practice self-advocacy or make adjustments independently. Thus, experiences position the researcher to have an understanding of the population being studied which is significant to the transformative paradigm. As Mertens (2007) explains, "the issues of understanding the culture and building trust are paramount" (p. 216). Furthermore, connection to the "cultural values and practices" of the group being studied is important to data collection (p. 220). The researcher shares some similar cultural values and practices as participants in the study, which will helped establish rapport with participants.

Self-advocacy in higher education is deeply connected to equitable access for students with disabilities. It is necessary because of physical, attitudinal, and institutional barriers for students with physical disabilities. As a result, students who use mobility aids must advocate for their needs. Access is not just something that happens. Students who use mobility aids are placed in the position of sacrificing their time, privacy, and dignity in order to ensure they have access to the same learning opportunities as their nondisabled peers. They have additional steps they must take in order to receive an education equitable to that of their nondisabled peers. This is hardly an equitable process because it demands skills and efforts nondisabled students do not need to engage in to succeed in higher education. These are my personal experiences and observations. Because this study is a transcendental or descriptive phenomenology, these positions are important to take into account while gathering, reflecting on, and analyzing data. Bracketing using a journal throughout the study is an important process since the researcher has firsthand experience with the phenomenon. Awareness of personal biases helps the researcher focus on participants' experiences. Continued bracketing will also ensure that participant experiences and perspectives are reflected accurately with no influence from the researcher's own biases.

Phenomenology, Theory, and Paradigm

Phenomenology and the transformative paradigm both seek to identify the stories of absent voices. Stories of lived experiences are deeply entrenched in phenomenological research (Moustakas, 1994; van Manen, 2015), and Mertens (2009) highlights the importance of stories from underrepresented groups. In addition, Mertens also encourages the researcher to develop their own understanding of the topic and their experiences with it - similar to bracketing. The transformative paradigm seeks to create opportunities for social justice as a result of the research agenda (Mertens, 2009). The social significance of this phenomenon provides the foundation for understanding it as an opportunity for change (Creswell, 2013; Mertens, 2007). Using the stories of postsecondary students who use mobility aids allows their experiences to be viewed through a variety of lenses while considering how social and institutional dynamics affect members of this community. The transformative paradigm addresses looking at the perspectives of postsecondary students who use mobility aids as an opportunity to make changes that are influenced by members of the community studied and meet that specific community's needs.

Applying a theory prior to conducting research in a transcendental phenomenology can be detrimental to discovering the essence of a phenomenon (van Manen, 2016); however, van Manen (2016) also explains that theory can be meaningful if it helps understand the phenomena. Vagle (2016) asserts that using a theory in phenomenological research is acceptable as long as the researcher is open to challenge the theory. Crip theory developed by Robert McRuer (2006) does not place meaning or interpretation on the experiences of participants. Instead, it offers a lens through which to view the social structures that influence postsecondary students who use mobility aids. Students who use mobility aids have a visible disability often viewed through a deficit perspective. This perspective is the result of ableist ideals of what it means to be normal and results in barriers for members of this population (McRuer, 2006). McRuer (2006) goes on to explain that the medical model of disability is deeply embedded into our social and institutional structures. These social and institutional structures are entwined with power structures that Mertens (2009) encourages investigating with the intention to change. Crip theory is a lens that can be challenged or applied to the stories of participants in order to determine how understanding this phenomenon can influence systemic change.

Description of Research Methods

Like most qualitative research methods, phenomenology requires participant selection, vetting of interview questions, interviews, and data analysis. The following paragraphs describe the specific processes for each of these that adhere to the principles of phenomenological research.

Role of the Researcher

Bracketing began before data collection in order to explore the researcher's personal connections with the phenomenon (Moustakas, 1994). Moustakas recommends and encourages bracketing as an opportunity to explore the topic and determine its “social meaning and significance” (p. 109) while limiting the influence of personal biases (Moustakas, 1994). Likewise, Mertens (2009) highlights the importance of establishing self-knowledge and cultural knowledge while developing a focus and determining questions. Thus, bracketing of personal experiences and ideas were conducted throughout the study through regular journaling. Bracketing was essential to this phenomenological study at all stages: developing interview questions, collecting data through interviews, analyzing data, and writing. It ensured that the researcher stayed open to possibilities instead of making determinations about the phenomenon based on preconceived ideas (Moustakas, 1994; Vagle, 2016) so understanding of the phenomena was focused on participants’ experiences (Mertens, 2009). Moustakas (1994) recommends the following methods for bracketing:

> growing quiet and listening, coming to an inward clearing; connecting with a dominant question, or concern related to a specific person (including one’s own self), or a situation or event; describing the experience; determining the qualities, invariant constituents, and core themes, considering possible meanings; and arriving at an understanding of the essences of the experience. (64).

Moustakas’ methods encouraged the researcher to be open to the possibilities and further inquiry into the phenomenon while removing personal experiences during all stages of the research process (Butler, 2016; Moustakas, 1994; Vagle, 2016). Bracketing demanded researcher reflection before the study began and throughout the study.

Reflection through regular journaling was completed prior to and throughout the entire data collection process. Research questions were developed through exploring researcher biases and understandings of the phenomenon. Journaling was also conducted before and after each interview and after each transcription was completed. Once data collection was complete, bracketing through journaling also played a role in data analysis to continue exploring biases and ideas that would potentially inhibit the participants' true experiences.

Developing Interview Questions

Doctoral colleagues reviewed interview questions to ensure the questions were not leading and captured the study's intent. In fact, bracketing was used to develop interview questions (Moustakas, 1994) so that questions were broad and inviting for participants to share their experiences in detail. Research questions and the drafted interview questions were shared with doctoral colleagues for feedback in order to ensure the interview questions aligned with the research questions, and the research questions were not leading. In addition, two interviews were conducted with two different participants in order to refine the interview questions. Data from these interviews were not used from the study because one participant was from outside of the U.S. and the other participant tried to be interviewed under a different name. Both of these interviews indicated a further need for follow-up questions about self-awareness of needs and different experiences with self-advocacy.

Selecting Participants

Creswell (2013) recommends using between three and ten participants for a phenomenological study in order to gain understanding from multiple perspectives. This number of participants ensures meaningful, rich descriptions of the experiences during interviews while also making sure participants represent a range of individuals experiencing the phenomenon (Vagle, 2016). Transformative paradigm establishes that members of the population being studied need to have a voice in the research (Mertens, 2007). Through both purposeful, criterion sampling and snowball sampling as recommended by Creswell (2013), this study had five participants. Participants all had experience with the phenomenon (Moustakas, 1994). All participants were postsecondary students who primarily used wheelchairs and were pursuing an undergraduate degree at a four-year university. Because the participants were all currently enrolled at a university, they were able to offer detailed accounts of their experience with the phenomenon.

Finding participants for this study was a challenge. Aamlid and Brownfield (2019) note that students with physical disabilities often find time as a barrier to their academic pursuits. As a result, students with disabilities often do not participate in research projects because of the time constraints (Aamlid & Brownfield, 2019). Because the study was conducted during the COVID-19 pandemic, all participants needed to be recruited through social media and contacting postsecondary institutions and other disability related organizations. The initial request for participants was shared on over 30 different social media groups specific to people with disabilities in mid-October of 2020. Additional strategies to find participants included reaching out to disability services departments at various colleges and universities, a local rehabilitative and recreation facility, and disability-related organizations. Three potential participants indicated interest in participating in the study but did not follow-through on responding to the study invitation. After over two months, the study had no participants. Thus, participant criteria were adjusted (see table 4), and the gift card compensation was added. The changes in criteria and compensation were submitted as a modification to IRB and received approval in January of 2021.

Table 4

Explanation of Criteria Adjustment

Revision	Original	Updated	Rationale
Years using a mobility aid	Onset within the past 5 years	Must use a mobility aid	Students with disabilities who have been diagnosed within the past 1 - 5 years are often making life adjustments and are not pursuing an undergraduate degree. In addition, potential participants indicated their onset was more than 5 years ago, but they changed the mobility aid used.
# of participants	3	4 – 6	Because the criteria are expanding, and the onset criteria was removed, more than 3 participants can be secured. This provides additional lenses to capture the essence of the phenomenon.
Recruitment	Social Media and email flyer	Social Media Questionnaire	The questionnaire tool helped identify participants for the study. This alternative method was needed in order to maintain compliance with social media group rules.
Compensation	None	$50 Amazon gift card	Time is important to students with disabilities. Initial responses on social media pages indicated that compensation would help.

Once the adjusted criteria were approved by IRB, the study participants had to meet each of the following:

- Current postsecondary student at a two- or four-year institution pursuing an undergraduate degree.
- Permanent disability that requires the use of a mobility aid.
- Ability to personally provide consent (other disabilities or age could not identify the participant as a member of a vulnerable population).

Through sharing a flyer (Appendix G) requesting participants on social media pages and by email and posting a questionnaire (Appendix F) asking participants to volunteer, the researcher secured five participants from across the United States who met the criteria and were interviewed between January and March of 2021. Individuals who expressed an interest received a formal invitation via email with a copy of the informed consent form to preview. Four participants responded through the questionnaire, and one was recruited through another social media contact. All participants completed the informed consent form prior to the first interview, and the form was reviewed with the research and each participant prior to the interviews.

Participants volunteered to participate by responding to social media requests and received a $50 electronic gift card from Amazon after completion of the interviews. Each participant completed a minimum of two interviews by Zoom video conferencing and reviewed descriptions written from the data. Two additional interviews were conducted as part of vetting the interview questions. One participant was from outside the United States, and per the IRB application, participants needed to be in the U.S. The other participant tried to be interviewed another time under a different name. Data were not used from these interviews; however, interview questions were further developed because of these interviews.

Data Collection

Interviews are the primary form of data collection in a phenomenological study (Creswell, 2013; Koopman, 2017; Moustakas, 1994, Vagle, 2016; van Manen, 2016). They allow opportunities to gather details about the lived experiences of participants in order to create a clear idea of the essence of the phenomenon. Interviews also offer individuals experiencing the phenomena the opportunity to share their own stories in their own voice (McRuer, 2013). Four of the participants in this study were interviewed twice and one participant was interviewed three times because of time constraints during the second interview. Each participant completed an informed consent (Appendix A) prior to the first interview. All interviews were conducted via Zoom video conferencing. They were recorded using Zoom as well as Rev.com. Interview recordings were securely stored on a password-protected device and destroyed after data was transcribed. Participants were made aware in the informed consent and at the beginning of interviews that transcripts of interviews would be kept for three years after completion of the study. The researcher was the primary instrument for data collection and transcription. Transcribing interviews gave the researcher full immersion in the data that allowed for exploration of insights during bracketing and data analysis (Patton, 2015).

Interviews began with a sense of openness resulting from the researcher's personal exploration of the phenomenon through bracketing (Moustakas, 1994; Vagle, 2016; van Manen 2016). Building trust with participants was essential to the interview process (Mertens, 2007). In fact, the first interview for each participant was used as an opportunity for the participant and researcher to grow comfortable with one another. Interview questions for the first interview were general and intended to establish rapport (Appendix D). Prior to interviews, the researcher also looked at personal assumptions including anticipated learning from the participants in order to understand judgements and biases that may have affected the interview process.

Moustakas (1994) explains that interviews are made of broad, open-ended questions and a conversational, trusting atmosphere that invites dialogue about the phenomenon. Effective phenomenological interview questions ask for stories and anecdotes to gather the lived experience participants have with the phenomenon (Moustakas, 1994; van Manen, 2016). Samuels (2017) asserts that stories are "powerful and necessary" for creating change (p. 21). Since the interview is an interactive conversation, participants were offered follow-up questions or prompts to provide more details or clarify misunderstandings (Moustakas, 1994). While semi-structured the interviews began with scripted questions (Appendix D), the interviews were guided by how the participant answered the questions. Follow-up interview questions often asked participants to share stories and anecdotes of their experiences with the phenomenon. Some of the prepared questions were not asked depending on the participants' answers as recommended by Moustakas (1994). In addition, the researcher shared personal stories as van Manen (2016) advises to create a comfortable environment with the participants. Even though the interview was being recorded, the researcher also paid close attention to the participant's inflection and use of body language during the interview. These details were collected as field notes, which are a part of bracketing during the interview (Moustakas, 1994). Bracketing also occurred after each interview to bring ideas together, identify researcher biases, explore participants' experiences, and determine clarifying questions.

Additional attention was given to time since Vagle (2016) warns not to make interviews too long; thus, additional interviews were scheduled with participants in order to gather more details and clarify existing details (Creswell, 2013; Koopman, 2017; Moustakas, 1994; Vagle, 2016;). The determination for additional interviews was made after initial data analysis. Each interview was transcribed upon completion for analysis. Interview participants' names were changed, and the institutions they attend were omitted to protect participants' identities. Participants also reflected caution about their identity being disclosed. People with physical disabilities are easily recognizable because they have visible disabilities. The stories participants shared were highly personal, and participants reflected some caution when sharing their stories. They did not want to be identified. Patton (2015) identifies the understanding between researcher and participants of protecting identities. Likewise, Moustakas (1994) supports removing or disguising details to protect participant identities. Therefore, gender-neutral pronoun use was another method to protect the confidentiality of participants. Typed transcripts have been kept on a password-protected computer and backed up using a password protected account and will be kept for up to three years.

Data Analysis

Data analysis involved multiple steps. Once interviews were transcribed and reviewed, the researcher determined that no further interviews were needed. Additional bracketing helped determine a new, fresh perspective on the data (Moustakas, 1994). Creswell (2013) also recommends bracketing prior to reviewing data so that the focus of data analysis will be on the participants instead of on the researcher's biases. Bracketing was in the form of additional journal writing and reviewing previous journal entries so the researcher could identify any biases that would influence data analysis. The bracketing throughout data analysis allowed the focus to be on organization of the data so that the participants' experiences were authentically presented (Patton, 2015) to arrive at the essence of the phenomena of self-advocacy for postsecondary students who use mobility aids.

Each interview was analyzed using phenomenological methods, starting with horizontalization. This process involved reviewing statements from interview transcripts and identifying those relevant to the phenomenon. Each statement was viewed with equal importance to the study. Initial categories were determined through using the study's research questions. As Patton (2015) notes, the questions guiding a study are "emergent"; therefore, questions may need to be adjusted based on the data collected during the study. Statements, or horizons, were sorted into clusters of meaning (Creswell, 2013; Moustakas, 1994) using the three major research questions that guided the study to ensure that the questions still accurately reflected the study's purpose: to understand the lived experiences of postsecondary students who use mobility aids and the ways in which they advocate for themselves. A majority of the horizontalized statements corresponded with the study's research questions. Statements outside the scope of the research questions and repeated statements were identified as outliers and removed from the study.

Continued writing plays a major role in the data analysis of phenomenological research (Vagle, 2016; van Manen, 2016). Bracketing through journaling occurred around these initial categories in order to determine further themes as Giorgi (1997) explains. Reflexivity was important throughout bracketing so the researcher could identify personal connections to the data and determine whether these connections could influence interpretation of the data (Creswell, 2013; Patton, 2015). Thus, the initial categories as determined by the research questions were broken down into clusters of meaning or themes (Creswell, 2013; Moustakas, 1994). Inductive analysis was used to allow themes to emerge from the data (Patton, 2015). Categories were revisited multiple times until the final categories were determined. This involved additional bracketing and moving back and forth between the data, emerging themes, and reflections through bracketing until the themes became clear (Creswell, 2013; Moustakas, 1994; Patton, 2015). As themes emerged, specific connections to both Crip Theory and the Transformative Paradigm became apparent in the data, specifically the need for a marginalized community to share their experiences (McRuer, 2006, and Mertens, 2007), and the importance of integrating disability into mainstream scholarship, like education, while acknowledging the significance of ableism and disablism (McRuer, 2006). While categories were not determined by crip theory or the transformative paradigm, these lenses offered additional perspectives supported by participants' experiences.

Themes were identified based on the data – the experiences of the participants. As themes emerged, so did connections to Mertens' transformative paradigm, and McRuer's crip theory (see Table 5). Establishing participant strengths and moments they felt empowered and valued became especially important because of Mertens' (2009) idea that looking beyond barriers within underrepresented groups is important. Data in the findings discuss barriers participants experienced as well as strengths individual participants used in the postsecondary setting. McRuer's (2013) crip theory also emerged in data in how participants at times were not prioritized as important and in how access involved attitudes in addition to physical structures.

Table 5
Themes, Transformative Paradigm, and Crip Theory

Theme	**Transformative Paradigm**	**Crip Theory**
Effects of disability on Education	Complexity within the disabled community	Disability is the individual's responsibility
Effective & Ineffective Access	Power structures that create inequitable access	Preference for nondisabled structures and practices Disability as the "problem"
Uses of Self-advocacy	Power structures that create inequitable access Strengths in the disabled community	Disability is the individual's responsibility Preference for nondisabled structures and practices
Knowledge for Self & Others	Self-knowledge and social change Strengths in the disabled community	Access involves changes in perspectives

The themes were then developed into descriptions called a textural description of the experience (Moustakas, 1994; Creswell, 2013; Patton, 2015). This description provided details of what happened during the experience, including "thoughts, feelings, examples, ideas, situations that portray what comprises an experience" (Moustakas, 1994, p. 47). Moustakas (1994) recommends to continually review of the description and themes during this process. This was followed by a structural description of the experience, which detailed how participants have experienced the phenomenon (Creswell, 2013; Moustakas, 1994). Finally, a composite description combined the textural and structural descriptions that captured the essence of the phenomenon for the participants as a group (Creswell, 2013; Moustakas, 1994). Descriptions were reviewed for the extent to which they captured the essence of the phenomenon (Connelly, 2010; Donalek 2014). Descriptions were updated for clarification and to add details that further captured the essence of the phenomenon.

Trustworthiness

Credibility of the study was managed through multiple methods throughout the study. Multiple interviews and rich, descriptive data were essential to establishing credibility (Maxwell, 2013; Yilmaz, 2013). The interview data collected came from multiple participants over a minimum of two interview sessions for each participant. Additional checks for accuracy were practiced during data collection, data analysis, and writing. The bracketing process took place when developing interview questions; before, during, and after data collection; and during data analysis, and focused on reducing biases of the researcher and ensuring the most accurate representation of data (Creswell, 2013; Moustakas, 1994; Patton, 2015; Yilmaz, 2013). This included comparisons of interview transcripts with categories and descriptions to ensure accuracy. The most significant check for accuracy was member checking. Member checking asked participants to review the descriptions to ensure that the themes and information were accurate, and no other details were needed to capture the essence of the phenomenon (Creswell, 2013; Koopman, 2017; Donalek, 2004; Maxwell, 2013; Patton, 2015; van Manen, 2016). Descriptions were updated based on responses from participants. Descriptions also included direct quotations from the participants to highlight details they provided. These descriptions were used in chapter 4 of the study.

Assumptions

Even though the researcher uses a wheelchair and has advocated for personal needs in multiple postsecondary environments, the researcher cannot assume that participants have had the same experience. In fact, participants may not recognize experiences as self-advocacy. In other cases, participants may not have advocated for themselves, or they may not have experience with self-advocacy within a postsecondary environment. Furthermore, this study does not assume that self-advocacy for postsecondary students who use mobility aids only relates to their physical disability. Participants may have other purposes and reasons for self-advocacy, including but not limited to other disabilities (learning disabilities, social disabilities) and life circumstances (family emergency, illness). The researcher assumed that participants answered questions as honestly as possible so that the study reflects their experiences as postsecondary students who use mobility aids.

Summary of the Methods

The strategies postsecondary students who use mobility aids use when advocating for themselves as well as the circumstances in which they must practice self-advocacy have received little to no attention in academic research. This phenomenological study has provided a detailed description of the lived experience (Creswell, 2013; Donalek, 2004; Koopman, 2017; Laverty, 2003; Moustakas, 1994; Patton, 2015; Vagle 2016) of students who use mobility aids attending a postsecondary institution. This study included at least two interviews with five postsecondary students who use mobility aids. Multiple interviews gave participants the opportunity to share as much as possible about their experience with the phenomenon (Moustakas, 1994; Vagle, 2016). The transcripts from interviews were organized into themes from which a detailed description of the phenomenon emerged (Creswell, 2013; Moustakas; 1994; Vagle, 2016). The purpose of the description was to capture the essence of the experience of self-advocacy for postsecondary students who use mobility aids.

CHAPTER 4: FINDINGS

Students with disabilities have their own needs that affect their academic and social postsecondary experiences. Students who use mobility devices are a subset of students with visible, or noticeable disabilities. Their disability has an effect on their postsecondary education, specifically their physical access on campus, interpersonal relationships with other students and faculty, and their ideas about self-advocacy. While self-advocacy is important for all students with disabilities, students who use mobility aids find themselves advocating on campus both in and out of the classroom for a variety of purposes.

This phenomenological study focused on the lived experiences of postsecondary students who use mobility aids and their use of self-advocacy within the postsecondary environment. The research questions guiding this study were:

1. What are the lived experiences of postsecondary students who use mobility aids during their postsecondary education?
2. What are the experiences postsecondary students who use mobility aids have with self-advocacy in a postsecondary setting?
3. In what ways do postsecondary students who use mobility aids interpret their experience with self-advocacy in their secondary education?

Participant Profiles

Each participant completed two semi-structured interviews. Each interview lasted for approximately one hour. One participant had to schedule a third interview because of time constraints during the second interview. Participants also received a copy of the initial description developed during data analysis to review for accuracy (Connelly 2010; Donalek, 2014). In order to protect the confidentiality of participants, each was given a gender-neutral pseudonym. All participants are referred to using gender-neutral, *they* or *their*, pronouns throughout the study. While this was another method for supporting anonymity, participants requested gender-neutral pronouns be used. In addition, because postsecondary students who use mobility aids are easily identifiable, the study does not include information that can identify them such as their institutions, specific diagnosis, major area of study, and specific state the participant lives in. While this information was shared during interviews, participants were made aware it would not be used in the study so they could maintain their anonymity. Again, this was to protect the identity of all participants.

All participants described their connection with their institution's disability services departments. The disability services departments at participants' institutions have different names depending on the institution. Disability Services is the department students use to request accommodations and adjust those accommodations as needed. The findings of this study use the name Disability Services for all participants' experiences with this campus department, even if specific institutions use a different name.

Table 6

Participant Overview

	Casey	Rory	Jordan	Quinn	Jamie
Mobility aid(s) used	Power Wheelchair	Ankle-Foot Orthosis (AFOs), Walker, Crutches, Manual Wheelchair	Manual Wheelchair	Manual Wheelchair, Motorized Scooter, Crutches	Manual Wheelchair
Length of time using mobility aids	More than 10 years	More than 10 years	Between 5 & 10 years	More than 10 years	Less than 2 years
2-year or 4-year institution	2-year and transferred to 4-year	2-year and transferred to 4-year	2-year and transferred to 4-year	2-year and transferred to 4-year	4-year
Online or in-person	Online	In-person until the pandemic forced all students online	In-person until the pandemic forced all students online	In-person until the pandemic forced all students online	In-person until the pandemic forced all students online
Part-time or full-time	Part-time	Part-time	Full-time	Full-time	Full-time
Future Plans	Graduate school	Graduate school	Graduate school	Considering graduate school	Pursuing certification and continuing education in their field

Casey's Postsecondary Experience

At the time of the study, Casey was entering their junior year of college. They completed an associate degree at a two-year college prior to transferring to a four-year institution. Casey was just beginning their coursework at the four-year institution at the time of interviews. All of Casey's classes at the two-year college were online, and the program they were pursuing at the four-year institution was online as well. While Casey did not initially seek online programs, they found when attending the two-year institution that an online program met their needs as a student with a physical disability. Because of Casey's disability, they used a power wheelchair and needed regular care and assistance from a personal care attendant (PCA). Casey's mom was their primary PCA. When Casey searched for bachelor's degree programs, they sought an online program specifically so that their mom would not need to attend class with them.

As a high school student, Casey received special education services and had an individualized education plan (IEP). Self-advocacy became more prevalent for Casey as they advanced in school, specifically in grades seven and eight; their IEP set goals for Casey to use self-advocacy skills. Casey was often underestimated and insulted in K – 12 education because of their disability. They were told in the K – 12 system that they were lazy and would not achieve a two-year postsecondary degree. Furthermore, Casey underwent a long diagnosis process during which doctors were uncertain, even doubtful that Casey needed a diagnosis because their diagnosis was so rare. Thus, Casey had to practice self-advocacy in the educational setting to have their educational needs met and within the medical system to have their health-related needs met. Self-advocacy was necessary for Casey in these instances because of the level of doubt individuals and institutions placed on Casey.

After high school, Casey was originally going to attend and live on-campus at a four-year university. They had arranged for a PCA to assist with activities of daily living (ADLs); however, the PCA "dropped" Casey. Casey explained that staying in the dorms with no PCA and being an hour away from home was scary. They determined moving home was best before classes started that year – a decision demonstrating Casey's self-awareness. Casey showed a strong sense of their independence:

> I can be independent in moving around my house, or independent, like going out in the yard or whatever, because of my chair, but I can't do my basic personal care all by myself. So therefore, I'm not independent in that way, and I could live by myself, but I'd always have to have someone with me. So independent to some point, but then there's a lot of things I need help with.

This self-knowledge was important for Casey to know what they needed to ask for and the reasons they needed their accommodations. Casey valued the independence that they had and has accepted that they needed assistance.

The pandemic was especially difficult for Casey because of practicing isolation from those outside of their household. Casey's disability placed them in a high-risk group for the effects of COVID-19. Therefore, they needed to stay home and avoid interacting with anyone outside of their home. The break between semesters was especially taxing for Casey because they could not socialize or go to the store. At the time of interviews, Casey was looking forward to beginning a new semester that would give them more interaction with others.

Rory's Postsecondary Experience

Rory's postsecondary experience was long. Originally, Rory attended a two-year community college before transferring to a four-year institution. Rory also participated in a teaching abroad program during community college. Because of Rory's disability progressing, they did not feel they would be able to participate in a program abroad again.

In high school, Rory had an individualized education plan (IEP) through special education services. When Rory started college, they did not want accommodations and saw accommodations as "special treatment." In fact, as a postsecondary student, Rory did not begin working with campus Disability Services or receiving accommodations until after they transferred to the four-year institution. Rory described this as their own "internalized ableism."

They described their postsecondary experience as a “long-term graduation plan.” This was because Rory “had a few semesters wiped for medical reasons,” and they continued working with professors to fulfill requirements from incomplete coursework. Rory had multiple disabilities and transitioned from a walker to a manual wheelchair approximately two years prior to the study. This transition occurred while Rory was enrolled in the four-year institution. Rory understood their needs as “less than some other people” because they were able to be independent with the use of mobility aids. On “good days” and when going short distances, Rory still occasionally used the walker; however, the manual wheelchair was their primary mobility device.

Because of the pandemic, Rory’s classes moved to fully online. Rory was still able to work at their campus work-study position though. In order to maintain safety protocols, the building Rory worked in had a one-way entrance and exit. This affected how students using mobility aids enter and exit the building, including Rory. While the building was still accessible, the pathway out of the building was less than ideal with the only option for exiting demanding use of an outdoor ramp.

Jordan’s Postsecondary Experience

Jordan began their postsecondary education at a community college and earned an associate degree prior to transferring to a four-year institution. They noted that attending community college was to “cut down on cost as much as possible.” Until the pandemic, Jordan’s classes had been in-person, but the pandemic forced all classes to an online platform.

Jordan was diagnosed with their disability and became a manual wheelchair user five years prior to the study, during their last year of high school. Their postsecondary education was their only experience of having a disability during their education. Overall, the transition was "tough and isolating" because Jordan did not have other friends who were wheelchair-users. At the time of the study, Jordan felt "pretty much like any other student." Before beginning community college, Jordan took a semester to make determinations about what they wanted to study. They wanted to make sure that they found a program that was interesting and in which they would like to pursue a career.

Self-advocacy for Jordan was easy and important even though Jordan admitted they did not like accepting help. In fact, they found it annoying when others asked them if they need help. Jordan felt that they can advocate and will ask for help if they need it.

Quinn's Postsecondary Experience

Quinn was diagnosed with their disability at birth and has used crutches, a walker, a manual wheelchair, and motorized scooter for mobility devices. As a student, Quinn used any of these mobility devices or combination of them. Quinn recalled using the wheelchair primarily during seventh grade because the passing time was only three minutes. In eighth grade, Quinn decided they wanted to use their crutches more because they thought they "could overcome" their disability.

Quinn's postsecondary journey began during high school when they enrolled in community college courses. After seven years in the community college system, they transferred to a four-year institution. Their primary mobility device on-campus was a motorized scooter because Quinn did not drive or own a car. While this makes getting to-and-from and moving around campus easy for Quinn, they worried about overtaxing the scooter or running out of battery power during the day. Until the pandemic, all Quinn's classes were in-person. Then, all classes were held remotely. With remote classes, Quinn found that their disability was hidden because they could choose whether to reveal it or not. If they did mention their disability, "it doesn't seem to matter as much … because it's virtual." Quinn reflected that this was freeing in some ways because they are not identified as the "[student] with the scooter."

When they were in middle and high school, Quinn did not want to be told they were disabled; however, as they began exploring disability more as a postsecondary student, they have embraced the word disabled. In fact, Quinn said they "[are] taking back the word." They understood that their perspective as a student with a disability was a valid and important perspective.

Jamie's Postsecondary Experience

Jamie began using a manual wheelchair approximately two years prior to the study. They had already started their postsecondary education when they began using a wheelchair. Jamie had multiple disabilities resulting from the same diagnosis. They lived with one other disability since elementary school, and it did not require the use of a mobility aid. Their diagnosis did make Jamie immunocompromised. When the pandemic began, Jamie needed to work with Disability Services to ensure that all of their classes would be remote.

Even though Jamie did not begin using a mobility aid until their postsecondary education, they had another disability that demanded they learn self-advocacy. When Jamie was 14, their parents sent them to a school for students with disabilities where Jamie learned self-advocacy. Jamie still received support from their parents with some circumstances demanding self-advocacy, even though Jamie would often like to be more independent with their self-advocacy. Overall, Jamie felt comfortable with self-advocacy because they understood when they need to use self-advocacy or find support to help them advocate.

During the study, Jamie was in their last semester and completing their internship. At this time, the entire internship was remote. Because all work for the internship was remote, most employees of the organization did not know that Jamie used a wheelchair. Jamie had some interaction with their direct supervisor and was planning to meet the director of the organization shortly after the study completion. This was stressful for Jamie. They feared that not disclosing their status as a wheelchair-user would affect their potential to be offered a job after the internship because they were not “open and honest” about their disability.

Themes

Students with disabilities all have unique needs, stories, and experiences. The five participants in this study answered questions about their experiences as postsecondary students who use mobility devices and their understanding, feelings, and uses of self-advocacy within the postsecondary environment. Details shared by participants were coded for meaning and analyzed for themes to reflect the lived experiences of the participants who are part of the phenomena of self-advocacy for postsecondary students who use mobility aids. Through the process of horizontalization, and developing descriptions based on the data, the following themes emerged: Effects of disability on education; Effective and ineffective access; Uses of self-advocacy; Knowledge for self and others. Each of these themes are also broken into subthemes.

The effects of disability on education discusses the influence each participant’s disability has had on their educational decisions as well as each participant’s approach to finding a balance between their activities of daily living (ADL) and their education. In addition, the importance of connecting with a community of students with physical disabilities emerged as a subtheme. This subtheme aligns with Merten’s (2007) Transformative Paradigm. Likewise, the need for accommodations within the postsecondary environment became prevalent. Participants in this study also experienced transitions, whether those were transitions from two-year to four-year institutions or transitions to new mobility aids. Thus, navigating transitions emerged as another subtheme. Because all participants have a noticeable physical disability and use a mobility aid, this has also affected how others interact with them.

Effective and ineffective access discusses participants' experiences with physical and interpersonal barriers as well as positive experiences with access on-campus. These access points and barriers may be related to logistics and overall campus structure or weather. Other access points and barriers may be related to physical classroom and office space. Additional barriers were specific to attitudes and stigma from others. Some of the encounters with poor or limited access put participants in positions to choose between problem-solving on their own and advocating for access to physical environments on campus.

Participants in this study had common uses and explanations for self-advocacy, even if they did not explicitly describe a circumstance as self-advocacy. Working with disability services and receiving accommodations was noted as self-advocacy for all participants. Communication also came up regularly, specifically communication with professors about accommodations, the student's openness about their disability, and what students need to know in order to advocate for themselves. Participants also discussed how their previous experiences and how onset of their disability affected their comfort levels and journeys with self-advocacy. Just as each disability has unique needs and experiences, self-advocacy is also a unique journey for each participant.

Each participant articulated strong feelings about being a part of the disability community and their ideas, feelings, and advice about teaching and learning with students who have mobility disabilities. The experiences and ideas shared highlight how their disabilities are not isolated to campus. Each of their disabilities transcends postsecondary education and needs to be considered beyond the postsecondary eduction environment.

Effects of Disability on Education

Disability affects decisions students with disabilities make in their educational journey. Many students with physical disabilities have medical appointments specific to their disabilities, and these students must navigate those appointments and their activities of daily living (ADL). ADLs may demand additional time because of physical and occupational therapy, or just because some ADLs take longer for people with physical disabilities. Finding balance between the demands of ADLs and academics is a challenge. The decisions students with physical disabilities make relate to their course load, and daily schedules. These are decisions that they must make for their own well-being to pursue their academic and career goals. Because participants have been pursuing their undergraduate degrees during the COVID-19 pandemic, they have also faced recent transitions in their educational journeys.

Disability influencing educational decisions. Disability influenced academic majors, online versus in-person, and part-time or full-time status for participants. When determining majors, participants were influenced by something related to their disability. Casey wanted to make sure to find a major that would result in a career field allowing them to work from home. Because Casey used vocational rehabilitation services to fund their education, they were obligated to “get a job for 90 days and hold it.” Casey explained their plan after graduation, “then I’m going to hopefully go on to get my master’s degree and then see what happens after that. But it’s a job that I can work from home, so that will be nice.” Casey’s desire to attend class and work from home were both decisions related to their disability. Jordan also indicated a major that would allow them to stay in their same state for employment because they wanted to maintain their healthcare team and were already receiving state Medicaid. Therefore, moving states sounded “terrifying” for Jordan. In addition, staying in their state for graduate school and employment would allow Jordan to continue working with their Division of Vocational Rehabilitation (DVR). Jordan has worked with DVR to help with books and hand controls for their vehicle. DVR also offers resources for resume writing and interviewing that Jordan could use to help secure employment after graduation. Working with DVR or Vocational Rehabilitation takes some of the financial burden from students with disabilities so they can focus on their academic and career goals.

Disability also influenced changes in major for students with disabilities. Jordan, Quinn, and Jamie all changed their majors. While their disabilities were not the only reason they decided to change their majors, their disabilities did influence their decision to change majors. Quinn's original major required them to transport bulky supplies to and from, and around campus:

> Lugging around … materials was really hard, and of course, I know you can leave your things there, and I talked to some professors or staff about the idea of me leaving by having my stuff there in a locker. They did let me have a locker in the room, but it was still annoying.

Even with a locker, Quinn still needed to transport the materials from campus to home using their scooter, and they felt they were "pushing it to the brink." Furthermore, Quinn had to initiate the effort to leave materials in the academic department, and they noted other possible solutions that felt like a hassle to arrange:

> If you didn't have to go through the bureaucracy of requesting having to say this is what I need. I don't know. I'm - I wish the professor had just said, you know, 'we'll set up this space as yours, and you can be here any time because we know it's hard to be lugging stuff back-and-forth between your - where you live and then where our class is.'

Hauling materials around campus was not the only reason Quinn changed majors; however, it did play a role in Quinn's willingness to pursue a different major, and they did.

Jordan and Jamie both changed their majors after they became wheelchair users. Jordan was not quite a postsecondary student when they became a wheelchair user. After high school, Jordan “took a semester off.” Their diagnosis occurred in their last year of high school, and they had been a performer and athlete, and their “whole future plans had to drastically do a 180.” Their original major was directly related to their performance experience, so their original goals were no longer an option when Jordan was diagnosed with their disability. Their ability to perform changed so much, that Jordan wanted to pursue something different. They needed to determine a major and find resources to help access college financially by establishing a relationship with DVR. Jamie became a wheelchair user while they attended college. Their condition warranted needing a wheelchair. Jamie attributed changing their major to both becoming a wheelchair user and to their relationship with their advisor. They felt their advisor was trying to control their future, and the advisor became angry if Jamie wanted to take a different path than recommended by the advisor.

All participants other than Casey primarily attended classes in-person prior to the pandemic when classes for all participants moved to online. Casey made the determination to enroll in an online program before the pandemic. This was not intentional though. In fact, Casey was not originally looking for an online program when they applied to their program. When they started pursuing an associate degree at the community college, Casey found out the program was fully online. They found that the online program worked best for them, so when Casey searched for bachelor’s degree programs, they focused on finding an online program: “When I looked for a bachelor’s, that’s what I looked for - all online because I’m like, I don’t want my mom to sit in class with me, you know?” Casey’s mom is their primary personal care attendant (PCA), and Casey knew they would need a PCA to attend classes with them if attending in-person. Enrolling in an online program gave Casey independence and privacy they would not have in an in-person program. Casey was not the only participant taking online classes though. At the time of the study, all of the participants had transitioned to online learning because of the COVID-19 pandemic.

Casey and Rory made the determination to attend part-time because of their disabilities. Rory determined that part-time was in their best interest:

> I have a lot of classes that I need to fit in, like, I'm only actively enrolled part-time, but I have a ton of incompletes I need to figure out, contact professors, and get taken care of and stuff like that.

The incomplete course grades for Rory were for medical reasons related to their disability. Maintaining a part-time status allowed Rory to complete work for current classes while making up work from previous classes. Casey made the determination to attend part-time after starting as a full-time student at the community college. They explained that "At first, when I started [community college], I was full-time, and I had like a melt-down, and like this was too much. I can't do it, you know? So that's when I went to part-time." The decision to pursue an undergraduate degree on a part-time basis was to help with the balance of medical needs and educational success.

Disability influences the decisions of postsecondary students who use mobility aids. The students need to determine what is best for them so they can earn their degree and manage their activities of daily living (ADLs). This may mean finding a degree that affects where they will work or attend graduate school, enrolling in an online program, taking classes part-time, or changing majors. While disability is not the only reason students make decisions about their education, disability is often one of the reasons behind these decisions.

Balancing academics with disability. In addition to their academic coursework, students with disabilities also need to pay attention to their health needs. These needs in some cases demand additional time for activities of daily living (ADLs) beyond regular hygiene and self-care like brushing teeth, eating meals, and participating in leisure activities. Sometimes balancing appointments and other medical needs also necessitate accommodations in the academic environment.

Casey, Jordan, and Rory all had a potential of illness and injury because of their disability. Sometimes, the outcomes of these illnesses and injuries were hospitalizations making accommodations on attendance, assignments, and exams important to their academic success. Jordan explained this need with consideration to support from faculty: “Faculty in my experience have been pretty accommodating and there for me. Due to my disability, I end up in the hospital a lot; thus needing extensions on assignments or passes for lectures.” Casey also had the accommodation for extensions on assignments and exams for the same reason while Rory had received a final grade of incomplete in classes because of complications resulting from their disability. Some days are physically tougher than others for Rory, making concentrating on coursework a challenge. In fact, Rory used a pink pig pillow as a neck support and needed to reposition during the second interview because, as Rory stated, “Today’s not as great of a day for my body as the last interview was, so my neck’s a little cranky, so I’m using him [pig pillow] for neck support.” Rory did feel comfortable enough to continue with the interview.

In addition to extensions on assignments and exams, participants also explained the need for excused absences and permission to be late to class. Rory, Jordan, and Quinn all had the accommodation to be late for class because of their mobility disability. Quinn noted that they had “permission to be a little late because the understanding that things happen in particular when you have a mobility disability.” This was not always an ideal accommodation though.

> So, there would be times - lots of times I would be late to class, and I’m thinking – I cannot just sneak in. I mean, I try to sneak in, and I’m not anonymous when I do it. Someone may notice, oh someone snuck in - they’re probably not going to think - oh that’s the guy with that hat or that same jacket.

While this accommodation allowed Quinn to manage personal care, Quinn felt they received unwanted attention when using this accommodation because of their visible disability.

Even with these accommodations, the participants also had to make time for medical appointments and other ADLs. Balancing between their physical needs and academics was often challenging. Regardless of academics, participants reflected an overall focus on their health because like Quinn explained, “I can’t neglect my health then manage other things.” In other words, if they did not focus on their health, they would not be able to manage their studies and other needs. They also described managing health and academics, “It’s been really hard to figure out how to do well in school and manage life with a physical disability.” In fact, Quinn admitted that they did not balance academics with life as a student with a physical disability. Quinn wondered, “How do I try to balance them” since Quinn found it difficult to separate academics and their disability. They could never ignore their disability to concentrate on academics. While health needed to be at the forefront, the participants wanted to do well in their coursework. Jordan echoed this by describing their flexible schedule to balance health needs with academics:

> It is hard. I have a very detailed schedule, because for me, my disability is a full-time job. I’m in PT [physical therapy] and OT [occupational therapy] four times a week and juggle multiple doctor appointments and just things I have to do, like standing in my stander and doing those things. But I would say my schedule and just being flexible with my time has been key in balancing all of that.

When asked how to manage a detailed schedule and keep it flexible, Jordan further explained:

> Flexible in that, you know, I had a really rough day at PT today, and I have a paper due in five days, but I'm gonna be flexible, and instead of staying up until midnight to work on that paper, I'm gonna do the thing that I actually need and go to bed. Even if my schedule is saying, 'No! You stay up and do school.' You know, finding that flexibility within the rigidity of the schedule.

Jordan recognized the importance of their academics and the importance of their ADLs. Furthermore, Jordan participated in an adaptive sport that is two hours round-trip from their home. They must make room in their schedule for this activity as well without neglecting their education or their ADLs. Rory had the same attitude about their ADLs as Jordan. They made sure to complete their PT "every single day" and made sure that they "do not skip days." Rory explained "I do everything I possibly can to push myself which is probably the only reason I'm doing as well as I am." For Rory, completing daily PT was also part of ensuring they maintain physical stamina and wellness to attend classes, complete work, fulfill academic and career goals, and most importantly live a full life.

Managing a detailed schedule was one method for balancing academics with living with a mobility disability. Like Jordan, Casey determined that a schedule was important for them to maintain the balance between their disability and education.

> I definitely have a fine balance of my care and my social life and school. And so I do school for 3 - 4 hours a day, each day, and which is nice because I do asynchronous, so I never have to be online at a certain time because if it interferes with my cares it doesn't work very well.

The "cares" Casey mentions were the ADLs for which they needed a personal care attendant (PCA). Casey was proud that they "have a really good schedule down" and admits that managing a schedule could be stressful, especially when something unexpected came up.

> Sometimes I do certain things, and I have to be very planned as much ahead of time, and if I don't have a schedule, I'm freaking out. It's like when is this going to get done, or

> how am I going to get this done? You know, I have to do a, b, and c, and how am I going to get g done?

While the schedule gave Casey some peace of mind, it also created some anxiety since there was not always room to manage everything or flexibility for things that came up.

When Jamie became a wheelchair user, they had to schedule additional time for ADLs like taking a shower. They explain, "I know I can't take a five-minute shower, like quick in and out shower like everybody else because, I know showers are dangerous because slippery surfaces equal death for wheelchair users, in my head." Jamie's fear of falling in the shower was clear, and they realized they need to take more time for this basic need. They needed to schedule additional time for this task and had built in other strategies for ensuring ADLs were smooth, like making sure everything needed to prepare for the day was within reach so they did "not have to expel more energy" than they would otherwise.

Balancing academics with ADLs as well as making determinations about personal health needs was important for the success of all participants. They not only needed to consider their use of time and energy, but they also needed to ensure they maintained healthy habits. This included making connections with others in their community.

Need for disability community. Students with physical disabilities stand out on-campus. They have limited privacy because everyone can see they have a disability. Having a physical disability is something difficult for the nondisabled community to relate to, and students with physical disabilities need peers they can relate to - peers that have some shared experience. This is helpful in how they navigate the postsecondary environment.

Attending a postsecondary institution as a student with a physical disability can be isolating, even lonely. While Quinn knew there were other students with physical disabilities on campus, they also felt like the "token visibly disabled person in the room" when in class, and like a “minority” on campus. Sharing an experience with another wheelchair user provided comfort in establishing solidarity, even under frustrating circumstances as Quinn explained:

> I was waiting for an elevator, and this other girl in a wheelchair, we were both waiting for the elevator - waiting and waiting. And it wouldn’t arrive, and we kind of laughed because we weren’t together. I mean, we weren’t alone there, and here was this elevator that seemed to be broke. And then this guy - like suddenly we found out yeah, it was broken. But kind of having that like - now we’re in this together.

While a broken elevator is normally frustrating, Quinn felt solidarity with another wheelchair user in that situation - someone who fully understood the experience as well. This made the entire situation less stressful and easier to manage than if another wheelchair user had not been present.

When Jordan transitioned to a wheelchair, they did not have a network of wheelchair-users outside of social media. This prompted Jordan to join an adaptive sport. Even though the sport was two hours away from Jordan’s home, it has helped them connect face-to-face with others in the disability community. Some of Jordan’s teammates also attended their university giving Jordan a community on-campus.

Like Jordan, Jamie noticed an absence of other students like them when they transitioned to a manual wheelchair. This was also challenging for Jamie because they already had nondisabled friends on-campus, and Jamie was learning how to navigate relationships as a new wheelchair user.

> It was hard because I knew nobody in a manual one [wheelchair]. I knew one person in a wheelchair, and I wasn’t going to go to him because we weren’t friends like that. And like I just felt that other people were going to judge me coming back, because it was my sophomore year, so I had established friendships already.

Even though Jamie had established friendships on campus, they still wanted to be a part of a community of people with physical disabilities. As a result, with the help of their advisor, Jamie was able to join a wheelchair track and field team. Jamie “learned more” about being a wheelchair user from participating in this team and made important connections that helped them adjust to being a wheelchair user.

Finding others with physical disabilities had an influence on the participants. One of the reasons Quinn found their new major was because their peers with disabilities recommended coursework they had enjoyed. Quinn also noted that being a part of a disability community is important for self-advocacy by explaining "One thing is important is to have social groups. Disabled friend that you can go - I mean go talk to about these things, and sometimes, we will be advocating for ourselves as a group." Individuals in the community set examples for each other and made one another feel like they could advocate for themselves too.

> I hear about someone else advocating for themselves, and I can do that. I don't know, just like we may be one-on-one in that interaction with the professor, or with the school official, but it - that foundation helps me.

Quinn did lament that the postsecondary institution they attended removed funding from programs for students with disabilities that provided opportunities for students with disabilities to create connections with one another. The only services available for students with disabilities was Disability Services and they only focused on academics, not socialization for students with disabilities. Furthermore, Disability Services must protect the privacy of students with disabilities, and they could not necessarily facilitate opportunities for students with disabilities to build a community on all campuses.

Rory echoed these sentiments when discussing having a community of students with physical disabilities. They felt this was important so that individuals could "share knowledge," like professors to avoid or to take classes with. In addition, individuals could "share who to talk to if you need something done. You share the places on-campus that are actually accessible, all that sort of stuff." Engaging with peers was essential to emotional and mental well-being. Rory summarized this idea in establishing that "people who know how to deal with disabilities in a certain way are other people with disabilities." Finding a community of like-minded people with similar experiences was important for students with disabilities.

Casey reinforced the importance of engaging in social connections through discussing the absence of it because of the pandemic. Since Casey's disability placed them at a high risk for complications if they were to contract COVID-19, they had to spend most of the pandemic in isolation. The online academic community while not all students with physical disabilities, provided Casey with a common community to engage in.

Part of the postsecondary experience is developing connections with other students, or networking. Students with disabilities have these opportunities within their classes, and they need these opportunities with other students with disabilities. For participants in this study, they found these connections so important that they were willing to drive hours and try a new activity in order to find people like them. Some participants in this study gained important knowledge and advice from socializing with their peers who use mobility aids. Without these connections, the postsecondary world can feel isolating with few who understand what it is like to be a student who uses a mobility aid.

Ableism and disablism from nondisabled peers. Having a community on-campus that understands them is important to students with physical disabilities. While participants recognized the good intentions of the nondisabled community, many interactions with nondisabled students reflected an inability to relate that resulted in ableist or disablist statements and assumptions. Ableism is the focus on the "positive values of able-bodiedness" while disablism is viewing disability as a terrible affliction and treating "disabled people unfairly" because of that perspective (Dolmage, 2020, p. 6 - 7). Both ableism and disablism are heavily rooted in the medical model of disability - the person with a disability is abnormal and needs to be repaired. These attitudes often create stigma and are ingrained in attitudes and processes within the postsecondary environment with the intention of "normalizing" the person with the disability (McRuer, 2013). Often, participants needed to advocate for themselves when faced with ableism or disablism in the postsecondary environment.

For some participants, making connections with nondisabled peers was challenging. Making friends had been an ongoing challenge for Casey, so they did not reach out as a method of protecting their feeling:

> I haven't really interacted too much with anyone. Kind of been scared to honestly cuz my experience making friends hasn't been the best. So, I just kind of do my studies and don't really socialize any farther than I have to.

Casey further explained that they had poor experiences with peers in K - 12 education, which made them guarded when interacting with new people, especially in an educational setting. Even with a friend, Casey has experienced ableism.

> One of my friends got upset cuz I had my elbows on the table at their dinner table, and I said, well, I have to get food to my mouth, you know? I have to support my elbows. Otherwise, I don't eat.

Rather than considering this ableist, Casey looked at it as an opportunity to educate their friend, so the friend understands that not everyone's needs are the same. This was Casey's attempt to help their friend adjust an ableist attitude.

Jordan also had found it challenging to build connections with nondisabled peers on-campus:

> My experience with students has been pretty hit-and-miss - ableism is heavily within our society, and I have found that my peers often struggle to relate to me. I have found that I work better with 30-year-olds versus 23-year-olds. I contribute that to them not, not having the life experience to relate to a wheelchair-user.

The ableism Jordan experienced from their peers came mostly in the form of microaggressions by lack of consciousness – nondisabled people neglecting to even recognize the presence of someone with a disability. Microaggressions are everyday comments, questions, and actions that send subtle and negative messages to a marginalized population, in this case students with disabilities (Campbell, 2020).

> They're microaggressions for sure, not just outright, but just maybe it's not ableism - just not being aware of surroundings, you know? Lounging out in front of me with their legs and not allowing me to get by, or ignoring me and not engaging, even if we're doing a group assignment. So yeah, those little microaggressions. Oh, you're different. I'm just gonna ignore you. That's easier.

While Jordan found these circumstances frustrating and disheartening, they also excused some of these interactions as unintentional and therefore not harmful. They also built a strong connection with a nondisabled peer on-campus because this person built trust with Jordan and was not "too helpful or overly focused" on Jordan's disability. Jordan explained they practiced flexibility, and they did not let the microaggressions get to them.

Experiences with ableism and disablism had a variety of responses among participants. While Jordan found these situations frustrating, they did not necessarily respond to the events. Likewise, Jamie found disablist mindsets frustrating. These mindsets interrupted Jamie's ability to move forward, especially what Jamie called "inspiration porn."

> People that come up to me, and they're like 'oh, I could never do what you do," and they like pat me on the back. And they're like 'I don't know how you get out of bed in the morning. I would just sit there and lay there all day.'

The disablism Jamie experienced indicates that nothing could be worse than being a wheelchair user. While this was one response Jamie experienced, they also noted that classmates often would not reach out to work together. In addition, when Jamie worked the fundraising table for an on-campus organization they participated in, they observed that fewer people donated to the organization than when nondisabled members worked at the fundraising table. Jamie attributed this to their disability and the ableism of people not wanting to interact with someone who used a wheelchair because a wheelchair user was not seen as normal.

Despite the fact that Jamie did not want to be pitied, they also had experienced unfamiliar people who assumed they need help because they were a wheelchair user. Quinn also experienced a feeling of other students in disability-related coursework having “a patronizing view” of people with disabilities and pity for them - a disablist viewpoint. For Jamie, this view often resulted in uninvited help. Jamie explained that this was frustrating and potentially physically harmful while also being an invasion of their space.

> I’ve had some people ask if I need just like help, and some people just like ask, and then I say no, and they leave me alone. Some people force help on me, and they physically grab my wheelchair handles and push, and I’m like ‘wait! You could have actually jammed my thumbs and actually physically hurt me.’ And they don’t understand that don’t touch me - this is actually an extension of my body is a thing.

This kind of response was not limited to Jamie’s experience. Rory also had inquiries about being helped as well as unsolicited help forced upon them from others on-campus. This was often in the form of someone starting to push Rory’s wheelchair without asking Rory if they would like help.

> It’s really frustrating because if you went up to an able-bodied person and just physically picked them up, yes, you might be saving them the effort of walking, but holy fuck, is it violating and infantilizing! It is extremely upsetting.

These situations also placed students who use mobility aids in a position to advocate for themselves. They needed to advocate for someone to stop pushing them because the assumption was made that they needed help in the first place. Assuming that a person who uses a mobility aid needs help is a disablist assumption. Advocating for someone to stop “helping” in these situations was delicate though because it came at a cost. Quinn's perspective on this demonstrates the delicate self-advocacy needed in these situations.

> We know you have good intentions. That's what - I know you mean well.
> Oh, one thing I hated hearing growing up is the one thing 'I'm just trying to help.'
> I know. I know you're trying to help, but I'm telling you, that's not helpful.
> Well, I wouldn't say that to them, but they get their feelings hurt. It's just inconvenient though. They're not helping.

These circumstances placed the student with a disability in a position to self-advocate for the unsolicited help to stop. This came at a risk of hurting someone's feelings, and the student using a mobility aid did not feel good about that either. They needed to choose between losing their independence and making someone feel bad because of assumptions from ableist and disablist mindsets.

Likewise, assuming that a person who uses a mobility aid is ill, or unhealthy correlates directly to the medical model of disability which presents disability as abnormal and something to be fixed. Rory and Quinn both experienced this lens on disability as well. In fact, Rory had people approach them to tell them "I'm praying for you to get better." As explained, Rory did daily physical therapy exercises to maintain the best possible condition. Statements like this were discouraging and sent the message that something is wrong with Rory. Often, situations like this leave the students with disabilities with little to say. Ultimately, ableist and disablist attitudes create barriers to learning and leave students with physical disabilities wondering if they belong in higher education.

Effective and Ineffective Access

Students who use mobility aids have a variety of experiences with physical access to spaces, both indoor and outdoor. Sometimes the experiences are positive, and the student has a good experience getting to classes; accessing services, materials, and resources; and moving around a classroom setting. Other times, access is limited or unavailable and presents a barrier. Barriers can be physical barriers or barriers created by people on-campus through stigma associated with disabilities. Barriers on-campus place students who use mobility aids in a position to advocate, problem solve, or accept the barrier.

General access and logistics. Participants noted experiences with access that were both positive and negative. Doors were a prevalent topic when discussing access, and they came to symbolize access points as well as barriers. Doors posed a paradox since they allow for easy access to buildings, services, resources, and classes, but doors also create barriers to buildings, services, resources, and classes.

Doors were a highlight for Casey when they visited the community college campus. Casey observed that all the doors had automated door buttons, and even more importantly, "they never didn't work unless the doors were locked when the pandemic started because they only had certain doors we could use." Because of this, Casey "never really had any issues getting in anywhere or around anywhere" while visiting the community college campus. Quinn also noted working door buttons throughout their campus.

Neither Rory nor Jamie had positive experiences with doors and accessibility on their campuses. Rory observed that some of the doors on various buildings did not have power at all:

> Some of them have signs for power doors, but they're not actually powered. So, I don't know if they used to be and came off, or if they reused a door from somewhere because it has the constant automatic door sign.

Rory also observed that cold weather affected the functionality of the automated doors. The button would not activate the door when the weather was cold. Furthermore, Rory found that some buttons were located too far away from the door, and the door would not stay open long enough. In some cases, the door would close on Rory while they were entering a building. In order to correct the problem, Rory practiced advocacy by following maintenance walks through campus with the maintenance team to point out the automated door buttons that needed to be repaired. Jamie also noted that many of the automated doors were not working on their campus. They advocated by writing numerous emails to campus facilities to identify the broken automated doors and request for them to be repaired. Jamie spent an entire semester emailing campus maintenance with no results. They then connected with a faculty member who was part of the diversity and inclusion committee. Jamie coordinated efforts with that faculty member, and a letter from the faculty member resulted in the automated doors being repaired. Both Rory and Jamie's advocacy was not heard. While they felt unheard, they also recognized the importance of this access for themselves and other classmates.

Because Jordan's campus was old, they encountered a variety of access issues. The doors to the building Disability Services was located in did not have an automated button on the outside. The actual department had a button to open the doors to the office. The accessible entrance to the building where Disability Services was located was also not inviting.

> You kind of have to go down where the garbage truck - basically to access the basement doors. So, you go down that road, and there's two pretty old doors that are heavy that you pull open, and they're [disability services] in the basement of that inaccessible building.

Jordan noted that they could open doors on their own; however, they expressed concern for other students with physical disabilities who may not be able to navigate the "heavy doors."

In addition to the poor access to disability services, Jordan also had a class on the second floor of a building with no elevator. This barrier affected Jordan's graduation timeline.

> It's a rather old campus, so not all of my classrooms have been made accessible, thus leaving me to have to change my class schedule and actually slow down my degree. I was supposed to graduate this spring, but last year, one of my classes was on the second story. The building did not have an elevator. So, for that one class, I had to wait all the

> way til this fall to take it. So logistically, that has been one of the most difficult things to deal with.

When Jordan discovered this barrier on the first day of the class, they attempted to problem-solve on their own.

> I kind of just sat there for a little bit, like ok, do I conquer these stairs, cuz I technically could figure out a way. Is it worth that? And I decided, like no. It's not worth it. So, I went and scheduled an appointment with my advisor and met with her within that week, and we changed everything with my schedule.

While Jordan did practice self-advocacy in this situation, they did not have their needs met. As discussed, schedules were especially important for Jordan; therefore, an adjustment like this meant their entire schedule needed to be reorganized. In addition, Jordan was placed in a position to problem-solve with an unreasonable potential solution - getting up the stairs for class on their own. They would also have to get downstairs after class. Furthermore, Jordan did not receive information from their advisor or any campus representative that this was a problem that required follow-up from campus officials.

Jamie also encountered multiple circumstances in which they could not access their classes because of limitations of the buildings. In all but one of these cases, Jamie was able to work with Disability Services to have the classroom changed. For the class that could not be changed, Jamie would ask other students for assistance to safely navigate the steep bridge that created a barrier for Jamie to get to class independently. Jamie's problem-solving took the form of self-advocacy.

Sometimes campus access cannot be adjusted because it is structural. At times like this, students who use mobility aids are placed in a position to accept the less-than-ideal access. The hills on both Rory's and Jamie's campuses were challenging to navigate and caused wear and tear on the body because they both used manual wheelchairs. Rory's campus had a shuttle for students; however, it was not accessible for students who use mobility aids. While the hills on campus could not be changed, Rory and Jamie both made sure they had time between classes to get from one class to the next.

Rory's work-study job was in a multi-level building with "4 half-levels." Rory described the building as "very split and staggered." In order to access the different levels, Rory had to use "one of those lifts that basically, like there's not a car." Rory describes the lift as "jankey," and went on to explain:

> If you don't shut the door tight and the one on the top floor doesn't shut unless you push it tight, it won't run. So, if I'm on the bottom, and someone else took it up to the top, and I hit the button, it won't come. So, someone else has to walk all the way up the stairs to close the door so that I can call the elevator down to me.

This building had access; however, the access was not ideal and sometimes forced the student with a disability to be dependent on nondisabled students and staff.

Not all access created issues with independence. Some access designs were less than ideal. Quinn described one of the major routes through campus as being accessible; however, they noted that it was less than ideal. It was a set of ramps with stairs through the middle. An individual who could use stairs "cuts right through all of those ramps," but the person who needed the ramps "has to go like this zig zag covering all this surface." Thus, it took the student who needed the ramps longer to get where they needed to go because the route was less direct. When mentioning this, Quinn thought this might be "a petty thing." Rory also noted that some access was not ideal, or at least off-the-beaten path and described ramp access that was "on a weird side of the building, like you have to go all the way around to get to the only ramp."

Rory provided another example of the design of a building explaining that access points take students who needed them to different ends of the building: "The ramp is on one side of the building, the elevator is in another corner, the lecture hall's over here." Rory indicated three different parts of the building with their hands, demonstrating how a student needing the ramp and elevator would have to go to different ends of the building to access each.

The access exists, but it takes more time for these students who use mobility aids because the route is not direct or convenient. Quinn brought up the cliché “beggars can’t be choosers” reflecting that students using mobility devices are in a position to be thankful for having the access despite inconvenient access. This places the student with a disability in the position of being the “beggar” and assumes that they should not wish for or have better. In other words, they cannot be “choosers,” or rather choices are not available for students with disabilities.

Accessing classrooms and faculty offices. Classrooms and faculty offices present another opportunity for access and barriers for students who use mobility aids. This also affects their education. When the access is good, students have entered a welcoming learning environment in which they do not need to worry about creating access. When the access is poor, students who use mobility aids need to self-advocate or problem-solve in order to make sure they can participate in the learning environment.

Classroom labs present barriers for students who use mobility aids. The lab tables are too high, at eye level for students who use wheelchairs. This is both a safety issue, especially when working with heat or chemicals, and an access issue. For some students with mobility disabilities, they may not be able to stand for the duration of a lab or at all. Sometimes accommodations are made, as they were for Jordan, but these accommodations may be less than ideal and do not reflect equitable learning with nondisabled students.

> Thankfully, my professor - they were accommodating in the way of figuring out a setup for me to do it, but they kind of just gave me a free pass, like - you did the lab cuz you were there. But it definitely was - I did not gain very much from those labs.

The accommodations provided to Jordan did not engage them in the learning in the same way as their nondisabled peers. Jordan did notice that the accommodation provided limited their learning opportunity for the class.

Lecture halls proved to have inconsistent access on campuses. Rory cited that some lecture halls offered optimum access that made it easy for them to find a space in the lecture hall.

> So, you come in the front and then it slopes upwards, and there's a ramp for the first bit. And then there's tables maybe a third of the way up instead of the desk with the arm thing. So, you just roll up to a table. They have wheelie chairs there, but you can just move the chairs out of the way and roll up to a table.

In this example, Rory highlighted the accessibility, which also had a variety of places for students who use mobility aids to sit. In other words, this lecture hall had options for students who use mobility aids. This was not the experience Rory had in a different lecture hall which did not seem to have a place for a wheelchair user at all. Rory created a solution that worked best for them so they could attend class:

> I would just sit down on the teacher's level and use the stair as a kind of desk next to me. Cuz each tier is two steps tall, so it was high enough. I could reach it pretty comfortably from the chair. And then I just had a notebook that I kept in my backpack that's just this really beefy, solid-covered thing. It had an actual solid cover instead of a bendy one, and I just kind of used that as my desk for note taking. [The professor] did offer to get a table, but it was already really packed down on the bottom floor, so it just wouldn't have made sense, but to clarify, they offered to make an accommodation.

Even with the offer of an accommodation from the professor, Rory continued working with the solution they arrived at. Rory was able to solve the problem without the accommodation, and without creating any inconvenience from further crowding the front of the room.

Crowded classrooms are a major concern for students with mobility disabilities. When discussing campus access, the number of desks in a classroom came up frequently. Jordan tried to "get to a classroom at least five minutes early" so they could rearrange desks and chairs and have comfortable access to what they needed. Quinn described this barrier as well and explained how it eliminated choices.

> Sometimes, in some classrooms, there's so many chairs stuffed in there that it's hard or me to get in there. I mean, it's nice when the room is spacious enough where I have the choice to fit myself in rather than coming in and then feeling like - oh, there are all these chairs. I can either be right by the door which isn't very accessible for other people, or I can be in the middle in the front.

Quinn noted not only the access they had but also indicated access for others. Choice was also something important to Quinn and found limited choices in classroom seating places a spotlight on them as a wheelchair user:

> I remember one class, it's deemed wheelchair accessible, but the one spot for the wheelchair user, it's sort of in the back of the classroom, and I always like to sit at the front, so that bothered me, and I don't have a choice. I'm just stuck sitting there. What if I want to sit somewhere else? No, that's the spot for wheelchair [student].

Having a specific place assigned in the classroom only drew further attention to Quinn because of their visible disability.

Jamie also placed importance on their choice to sit in a desk instead of being limited to the wheelchair accessible desk. However, because Jamie used a wheelchair, professors and classmates assumed that the wheelchair accessible desk was the best or only desk for Jamie to access.

> So, professors think they're doing a service to me by being like - oh - because we have these special desks in the front of the room that are - just like tables, and it's cool I guess if, if some other wheelchair user doesn't want to transfer. But I like feeling like every other student that gets to sit in a desk, and, and so I choose to sit in a desk. And so, I do, but some professors don't get - they think that I do [need to sit at the accessible desk], so they actually take away the desk before I even get to have a say in it.

This choice was important for Jamie because it was a decision Jamie could make independently, and they could transfer to the desk independently. Jamie felt that as a student who used a wheelchair "there are certain things that people don't let us get to do at the time or people discount us from doing." Taking away the desk sent a message to Jamie that they could not make their own decisions.

Many classrooms have wheelchair accessible tables or desks. Sometimes these offer effective access, while other times, they create barriers. At Rory's institution, these tables were labelled with a sign saying, "for people with mobility needs." This spot was not always available for students with mobility disabilities. In fact, nondisabled students often sat at the accessible desk "since that spot is closest to the door." For Jordan, these desks presented a different challenge.

> The desk I've always had an issue with them being way too low, and my knees hitting the desks so I can't pull up all the way, or I have to slide my leg off the footplate, and then I'm kind of sliding off the chair.

This created a physically uncomfortable learning environment for Jordan.

Students who use mobility aids also need to have access to their professors during office hours. When Casey visited campus for advisor meetings, they found that their advisor's office was accessible. The advisor "adjusted their rooms" so that Casey could easily get in the room. Casey found that this created a welcoming environment for their meeting. On the other hand, Rory found professor's offices to be a burden. Normally, they could "slide in and slide out" of the office. Because of this, Rory tried to find other methods for connecting with professors.

> A lot of times, I'll just avoid it. Sometimes, if it's just a small question, I'll try and catch them, like after class like if they and I both have time which is iffy because it takes some time to get across campus.

Rory's solution did not allow them the full opportunity to have their questions answered or connect with their professors.

The use of space in classrooms, specifically placement of desks, tables, and chairs to create access aisles presents an inviting or limiting space. While all students in this study could find space to learn in the classroom, they often found the space limiting, or they had to improve the access in the classroom on their own.

Weather as a barrier. While weather is something that cannot be controlled, it does affect access for students who use mobility devices. Rory, Jordan, and Jamie all had to navigate snow on campus during the winter months. All three participants were manual wheelchair-users, and all noted that pushing a manual wheelchair through the snow was very challenging. It could result in getting stuck, and it takes significantly longer for a wheelchair user to get across campus with snow on the ground than without snow. Snow affected how these students navigate campus as well as other things like parking.

Rory, Jordan, and Jamie each described snow removal on their campuses, and noted that poor snow removal had caused interruptions and frustrations for them on their respective campuses. Rory elaborated by explaining:

> There's like, in front of our library, there's the giant campus mall, and there's these giant flower beds. They split it and made these two lanes, and a lot of the time, they'll plow all the snow onto one side of those lanes cuz the lanes are super long. So, all of the sudden, I'm going, and it's downhill, and all of the sudden, I realize my entire path is cut off by this giant snowbank. They don't leave a path through it at all. I have to go all the way back up the hill, around the median, back down the other side.

This created an interruption for Rory because they needed to significantly alter their route and go back up a hill in their manual wheelchair. Jordan also noted that their "campus does not stay on top of clearing sidewalks and making getting to classes accessible." In addition, Jordan observed that ramps to enter certain buildings were icy which posed a safety hazard for students with and without disabilities. At Jamie's institution, disability services had access to Jamie's schedule, and maintenance "will try to plow your classes first, or get to your classes first on your schedule, on your - on the route. But they don't. And so, it's a lot, and sometimes it freezes over." These were times when students who use mobility aids could use assistance, but that's not always available. Jamie experienced being stuck in the snow and had to ask for help. They had received the response to "call maintenance" instead of receiving assistance as requested.

Snow removal also affects students' ability to park on-campus. Poor snow and ice removal takes away handicapped parking places and sometimes creates unsafe circumstances for students using mobility aids. Jordan experienced unsafe conditions when transferring from their vehicle to their wheelchair in the winter and described the problem, "They just don't bother to plow, and then issues with ice and wheelchairs not staying in place with transferring, and those things come up." Like Jordan, Rory noted that snow removal created barriers to access. Snow was plowed into "loading zones for the accessible spots" and into the actual spots which limited parking and therefore access for students who needed these parking spots. While the weather is out of anyone's control, poor snow removal results in dangerous situations and barriers to access classes for students who use mobility aids.

Barriers created by faculty and peers. The sub-theme addressing ableism and disablism from nondisabled peers brought to light some of the daily interactions participants have had with their peers. While these interactions present annoyances, they may also affect the participant's ability to learn or access daily needs. The experiences in this sub-theme are examples of how faculty and peers have created barriers to learning for some of the participants. These barriers are also examples of ableist ideas.

While Jamie acknowledged that some of their professors had been supportive and accommodating, they experienced discouragement from professors who lacked empathy and placed Jamie in socially and physically uncomfortable situations. After Jamie became a wheelchair user, a professor had Jamie use a lab stool for a 2-hour lab. Jamie had taken a class with this professor prior to being a wheelchair-user as well. Jamie explained “it was like the most embarrassing thing probably.” This also placed Jamie in a physically uncomfortable and unsafe situation. Another professor questioned Jamie in a lecture hall when they sat in the accessible seating at the back of the lecture hall.

> I sat in the back, and he was like, everybody has to move to the sixth row, and it was one of the lecture halls where you have to walk down into. And so, I wasn’t moving, and he wasn’t getting why I wasn’t moving. So, he calls up to me, and he’s like ‘why aren’t you moving?’ And I’m like ‘I can’t.’ And he’s like ‘why can’t you?’ And he’s just getting irritated with me. And, and I’m like hoping he wasn’t going to pursue it, but he’s like ‘why can’t you move down?’ And I’m like ‘because I can’t walk.’ And he’s like ‘Oh, OK.’ He never said sorry or whatever, and he just blamed it on - oh, he couldn’t see.

Jamie had also taken a class with this professor prior to becoming a wheelchair user. What Jamie found most frustrating was that this professor was a part-time wheelchair user. Both of these situations created uncomfortable learning environments for Jamie. Jamie did follow-up with appropriate campus departments to address both of these situations.

Sometimes interactions create uncomfortable, frustrating situations, and other times, they affect a student academically. When requesting a note-taker with a professor, one of Rory’s accommodations, Rory experienced an uncomfortable classroom situation.

> I approached the professor, and I was like, hey, I need a notetaker for the class, and what they’re supposed to do is send out an email being like - hey, there’s a student in class who needs a note-taker. It gets paid. Anyone want to do it? What he did instead was stood in front of the class and was like, ‘hey, [Rory] there needs a notetaker - anyone want to do it?’ Yeah, which was uncomfortable. Did not get a note-taker for that class.

The professor did not maintain Rory’s confidentiality and shared Rory’s name with the class. It also created an embarrassing situation for Rory. As a result of this approach, Rory did not have a note-taker for the class. Rory attributed their low final grade in this class to not having a note-taker. This professor’s approach created a barrier to Rory’s academic success.

Jordan also had encounters with faculty when they met briefly with instructors after class. They would prefer if professors sat instead of stand; however, Jordan noted, "probably 95% of conversations with instructors, the instructor doesn't sit down." Jordan explained the problem with the professor standing to speak directly to them after class:

> My psychology professor - we were - I came up to her after class because I wasn't happy with the grade on my paper, and I was just like – 'you didn't provide notes. Can you walk me through why I got this grade, so I don't get the same grade for the next paper?' And for 10 minutes, she stood there - went over my paper; however, I could barely see the paper because she's holding it, and you know, I sometimes have difficulty hearing, and so she's mumbling, pointing to the paper, and I'm making out maybe 70% of the conversation, and then, you know I have to cock my head, and I'm looking at somebody, you know, two feet higher than me.

This created a situation that caused physical discomfort for Jordan. Moreover, Jordan did not get all of the information they needed in order to do well on the next paper because they could not see what the professor was indicating on the paper. This was a situation that affected Jordan's learning. While Jordan says they are "desensitized to it now," they also had other strong feelings about interactions like this one.

> I get frustrated by it or feel less of an adult. It's not that I feel less human, but I feel childish because children walk around constantly looking up to the adults in their lives. So yeah, I'm pretty desensitized to it where it doesn't hurt me every single time it happens. And I think if I wasn't desensitized, I would be a very angry person. I can't let those little things leave marks.

Jordan found their own coping mechanism around their feelings about this. In referencing feeling childish, Jordan also brought to light the power dynamic in situations like this: professor to student and nondisabled person to disabled person.

Jamie experienced the power dynamic of nondisabled person to disabled person when they were asked to complete group work. Often, peers did not want to work with Jamie. They felt it was because of their disabilities. As a result, "instructors … had to assign literally groups. They've had to break us into groups just so I didn't feel excluded because they noticed that that would just always happen." Jamie did question the intent of some of the professors who tried to help them and questions whether professors were trying to be helpful or trying to make themselves look good.

Outside of classroom situations, Jamie and Quinn encountered people-created barriers when trying to access meals. Quinn's living arrangement had a shared dining space. While the space itself was accessible, others living in the facility created barriers.

> It was really frustrating because people - they were completely clueless about leaving the dining room - keeping the dining room wheelchair accessible. There were all of these - they put the compost bins in the aisle, and in - and even though it was a really big house - and then we had these picnic style tables with benches in the dining room, and people would put chairs on the ends of the tables, and I feel like - and when they wouldn't put them back, and I was, I was - The guy I was with at the time would like remind everybody. It was kind of a relief that somebody else could say this, but please put your chairs back cuz it's not wheelchair accessible.

While frustrated with the circumstances that presented physical barriers, Quinn was also glad to have someone else address the problem. It helped them feel supported and like someone understood. In addition, it took the responsibility of saying something off Quinn, which is important because Quinn did not cause the problem. Jamie faced barriers to getting meals as well. In a meeting with a campus organization Jamie participated in, the meal served was buffet style. Even though Jamie needed help, they felt that no one was available to help them. When working with campus dining services, Jamie was often made to wait for assistance from someone in the kitchen. Jamie heard employees remark that they did not want to help which placed Jamie in an awkward position with no options other than to let the staff work out their problems in the back.

When faced with these situations that cause barriers, students with mobility disabilities have limited choices. One of their choices is to advocate for themselves, but not all situations lend themselves to self-advocacy. In addition, some situations do not warrant self-advocacy.

In all, many barriers to learning force students who use mobility aids to be reactive since the campus was not proactive in creating an inclusive environment for these students.

Uses of Self-Advocacy

Self-advocacy comes in a variety of forms with a variety of purposes for students who use mobility aids. All participants in this study worked formally with their respective Disability Services departments. Working with Disability Services is an example of formalized self-advocacy. Participants had to follow a process and continue to follow protocols in order to receive their accommodations. Participants also experienced self-advocacy that was more spontaneous and informal than their connection with Disability Services. Whether self-advocacy was supported through formalized methods or informal, all self-advocacy relied on clear and thoughtful communication.

Disability Services and accommodations process. Students with disabilities are responsible for connecting with their campus' Disability Services department in order to receive accommodations. This process involves at least one visit with a Disability Services counselor and documentation of the disability. Different institutions have different overall processes and requirements for students to receive accommodations. In addition, different institutions also have different methods for communicating student accommodations to professors. As a result, students transferring from one institution to another must go through the registration and documentation process multiple times. Regardless of the process, registering with Disability Services is one of the first formalized acts of self-advocacy for postsecondary students who use mobility aids.

Receiving accommodations is a multi-step process for students with disabilities. First, they need to establish a relationship with campus Disability Services. Then they must identify accommodations they need and provide documentation for those accommodations. Students work with a Disability Services counselor for approval of accommodations. Students then need to renew those accommodations annually. For some students, like Jordan and Quinn, this meant completing a form at the beginning of each semester. For other students, like Casey, this entailed a meeting by phone, video conferencing platform, or in-person. Once the student has accommodations approved, professors need to be notified. In most cases, the professors receive a notification by email or hard-copy letter that they have a student in class who needs accommodations. The student then needs to follow-up with the professor to access those accommodations. Thus, the process begins with self-advocacy and demands continued self-advocacy from students to receive their accommodations.

In order to receive accommodations at their community college, Casey had the support of their personal care attendant (PCA) and their vocational rehabilitation counselor. Despite initially feeling nervous, Casey found the process to be easy. In fact, they felt they "could have asked for anything," and the process was helpful. The process for getting accommodations when Casey transferred to a four-year institution was also smooth. Casey was complimentary with the levels of communication and ease of receiving accommodations:

> So far, the college has been the same [as the community college], with communication - really good. You know being able to get them when I need to. I haven't had to use any yet, but I haven't had trouble getting an agreement of what ones I have to have, or what ones I want. So that was really nice, and they're very knowledgeable.

Like with the community college, Casey had to schedule a meeting with Disability Services at the four-year institution to receive accommodations at that institution since accommodations do not transfer from one institution to another, especially if the institutions are not within the same system. Attending a new institution also created a change in how Casey requests accommodations from their professors in the future. At the community college, Disability

Services notified professors about Casey's accommodations at the beginning of the semester, and they would ensure that exams were delivered with Casey's extended time accommodation. At the four-year institution, Casey needed to contact their instructors prior to exams to receive their time-and-a-half accommodation. Casey acknowledged that the process for this at their new institution "is going to be a little bit more challenging to remember." The only challenge Casey had working with Disability Services was when the community college Disability Services counselor retired. This was not communicated with Casey, and it resulted in Casey having to visit the campus to meet with the new counselor. The timeframe was during the COVID-19 pandemic, which created stress for Casey because their disability placed them in a high-risk category if they were to contract COVID-19.

Jordan also transferred from a community college to a four-year institution. The process for receiving accommodations at the community college was smoother, and the Disability Services counselor was more helpful than the Disability Services counselor at the four-year institution. Jordan felt this was because the counselor at the community college "had a disability, so she knew all of the resources" and could make suggestions. The community college Disability Services counselor also understood Jordan and listened to Jordan's needs when determining an accommodation. Jordan explained how they approached the disability services counselor:

> I struggle with having people help me. It makes me feel less independent. Is there any other independent way that I can, you know, get accommodations?' And she pulled out this pen that actually records, and she was like 'will you use this?' and 'Try it for two weeks, and if it works, we will figure out funding and get it funded for you to get your own.' So, she just seemed more aware of resources that could accommodate.

Jordan also felt heard by the Disability Services counselor at the community college. The guidance and assistance Jordan received at the four-year institution was frustrating instead of reassuring. Jordan found the Disability Services counselor “vague” when requesting documentation of Jordan’s disability. This made it difficult for Jordan to secure appropriate documentation requested by Disability Services.

> So, I asked for accommodations within my letter stating that when I’m hospitalized, I’m allowed extensions, and she was, she was very confused in like ‘well, if you want that accommodation, we’ll have to receive documentation from physicians for that.’ However, when I was like, ‘OK - what does the letter need to say?’ her response was just that it’s needed. However, I sent her that letter, and she was like ‘it’s not enough information.’ So, we kind of just went around and around for a little bit finding out exactly what she needed for that accommodation.

This process required additional steps for Jordan because they did not have clarity in the instructions. Jordan also noted that they “wish there wasn’t so much gatekeeping and red tape” for receiving accommodations. They felt as if receiving accommodations for their postsecondary education required as much documentation as required for qualifying for government services. In addition to the difficulties in requesting accommodations, Jordan also did not feel their current Disability Services counselor was effective because she was not clear with “options for services and accommodations, and she’s very vague with her answers to my questions.” As a result, Jordan did not meet regularly, or even annually with the Disability Services counselor.

Working with Disability Services was challenging for Rory too. These challenges were mostly because of significant turnover in the department. The turnover resulted in inconsistent resources, accommodations, and processes. According to Rory, the first Disability Services counselor they worked with “had no idea how to handle things. Like all he could do would be like - if this is the diagnosis, - this is the laundry list of accommodations you get, no flexibility, nothing else.” The Disability Services counselor would only present accommodations from a prescribed list. This was especially challenging to Rory because they have multiple disabilities that require a range of accommodations and flexibility. This was the first Disability Services counselor Rory worked with at the four-year institution. Three more have followed, and Rory was still trying to determine whether the current Disability Services coordinator was effective to work with.

Quinn did not had difficulty working with Disability Services. Instead, Quinn struggled with internalized ableism when requesting accommodations at the beginning of each semester. As part of this process, Quinn needed to select the accommodations they want for each course. This process brought Quinn a lot of uncertainty about their abilities as a student.

> Permission to get extensions on assignments which is the last one I feel like - well, I don't want to select that because then I'm letting myself down, and I already did that last semester with the same professor. And it didn't seem to work well for me before. So, I gotta hold myself to a higher standard this semester and not just use it, or I can also ask for the accommodation later on. It's like I'm being too disabled. Like I have this physical disability then to layer on top of that other accommodations.

Quinn questioned their ability and validity as a student when requesting this accommodation. They also observed that this accommodation was surrounded by stigma which discouraged Quinn from "checking the box" for that accommodation. They did still check the box because they knew they needed the accommodation but questioned what was needed when identifying accommodations for the semester: "I may have needed x in another class, but surely I can get by without it in *this* class." In some ways, Quinn felt having this accommodation made them less of a student.

Most participants did not associate self-advocacy with registering with Disability Services or regularly identifying accommodations. They separated their experiences with self-advocacy from disability services, even though the process for receiving accommodations is rooted in self-advocacy skills and knowledge like self-awareness and communication.

Communication - openness with faculty. One of the forms of self-advocacy that students in this study indicated was openness with their professors. Even though all participants worked with Disability Services, and Disability Services notified professors that the students had accommodations, these students highlighted the importance of communicating about their disability with their professors early in each semester. Participants felt this openness provided them with the opportunity to build connections with their professors, and they felt these connections would make requesting accommodations easier than if they had not made these connections.

Table 7
Student Accommodations

Participant	Official Accommodations Received
Casey	Extra time on tests; extended due dates to complete tests & assignments; Accessible desk space (for height & width of power chair); PCA in class; attendance accommodation (time off from class); space to get in and out of the classroom; note-taker; priority registration
Rory	Extended time on tests and assignments; Permitted to be late to class; note-taker; record lectures
Jordan	Extended time on tests and assignments; Permitted to be late to class; note-taker/record lectures
Quinn	Extended time on tests; permitted to be late to class; record lectures
Jamie	Extra time on tests and exam proctoring in disability services

All of these students have physically noticeable disabilities since each used a mobility aid. Before the pandemic, Casey was the only student whose disability would not have been noticeable upon entering a classroom because Casey only took online classes. Because of this, Casey explains, “I was always very open with all my instructors about my condition and what, you know, could happen, or things coming up.” On the other hand, the move to remote classes reduced the need for self-advocacy for Quinn:

> I guess it’s nice. I guess I can get - oh, this is what it’s kind of like to be closeted disabled. I mean to have a hidden disability. Like yeah, I could reveal it, or I could just

> go along, but it also doesn't seem - it doesn't matter as much, even if I bring it up because it's virtual. It's remote.

Remote learning took some of the need for openness away from Quinn; however, when in-person, Quinn did make sure to advocate and connect with professors. Quinn felt that connecting with professors was important, especially when they needed to discuss their disability and accommodations. They explained that self-advocacy involved being "vulnerable" and sharing their story and connecting with the professor through feelings while "trying to be on their good side but also being direct." These were all strategies Quinn has used in communicating with their professors.

Jamie felt that being open with their professors was necessary because their disability is visible and they "couldn't hide it;" therefore, they found it important to communicate with professors about their disability.

> Usually, I will send out an email informing them just kind of disclosing to them about like my status. Kind of being like 'hi, I'm so-and-so. I'm in your class. I have a disability. I have an accommodation letter. It will be coming to you electronically.

Openness was something that Jamie was concerned about when discussing their internship though. Jamie's internship was fully remote work because of the COVID-19 pandemic. Since Jamie did not need accommodations related to being a wheelchair user, they did not share information about their mobility aid with the organization's director. Jamie wonders, "what's going to go through his mind being like, we have an intern who's in a wheelchair. Like what? Nobody informed us?" Because the internship had the potential to become a full-time job after graduation for Jamie, they felt that they will not be seen as having been "open and honest" and prevent a job offer after Jamie completes the internship. This lack of openness created anxiety and fear for Jamie. Disability disclosure became something Ashely felt responsible for whether their disability affected their performance or not.

Jordan’s openness is a follow-up from the notification sent from Disability Services. This follow-up was so Jordan knew the professor received the accommodation information, and Jordan felt that the information provided by Disability Services was “vague.”

> The case worker sends them [professors] a letter of the approved accommodations, so that’s how I know, and then - I get cc’d onto that email, and then I follow up with the professors introducing myself and giving them a heads-up cuz the letter is pretty vague on when or if I need those services, so that’s one I follow-up with - hey, I go to the hospital a lot and all these things.

Sending this email offers clarification Jordan felt their professors need. It also built a connection with professors like other participants indicated.

Communicating with professors early in the semester is proactive for the students; however, it continues to place the burden of disclosure on the students. Disability Services offers a place for the disclosure to begin. It has specific guidelines and regulations it needs to follow when working with students. Student advocacy in classrooms and with faculty often extends beyond what Disability Services can provide.

Communicating accommodations with faculty. Beyond a general introduction with professors, students with disabilities find themselves advocating when they need to use their accommodations. Sometimes this is an easy task with faculty who accept students with disabilities in their classes. Other times, this is a challenging feat for students who use mobility aids because of a professor’s attitude about accommodations. In addition, sometimes students find this level of advocacy burdensome, and it makes them question their place in higher education.

Overall, requesting to use accommodations was a simple process for most participants. Casey found the communication with professors easy. All they needed to do was email professors when they needed to use an accommodation. If Casey had an exam on the same day as a medical appointment, they were able to request taking the exam on a different day with no problem. Jordan also has found using their accommodations to be a simple process - through email to notify a professor of a needed extension or remind the professor about Jordan's accommodation to record lectures. If Jordan encounters\d a hospitalization though, they were required to submit documentation to their professor for the missed class time and to finalize receiving an extension on assignments. Casey just had to request an extension and did not have to provide a reason for needing the extension.

Quinn also had the accommodation of extensions on assignments and did not need to include a reason for requesting the extension. While Quinn found communicating with professors easy, they had a lot of mixed feelings about requesting this accommodation.

> I guess it's self-advocacy when I email the professor and say - 'so I am - I know I asked for extensions this time, but I am still' - I guess how I feel is, Oh, here I go. I'm asking for this again, and I know that's an accommodation, but I feel like I - I'm - am I losing touch with my own sense of ambition?

Quinn wondered if requesting the accommodation limited them, even though this was an accommodation they need. They also did not want to be viewed as a "sorry case" when requesting this accommodation.

Rory had similar experiences with requesting accommodations, specifically for extended time. Sometimes when using this accommodation, Rory questioned whether they were putting forth their best effort. They felt as if they were not working hard enough and did not necessarily need accommodations. This was not influenced by professor responses. Rory did note that some professors were more responsive with accommodations than others.

> Some teachers aren't great about it, and other teachers who are like, I don't really follow it, or I have to follow it by the letter; I actually can't be flexible at all. And then I have other teachers who are like - you don't even have to show them the [accommodations] sheet. You just have to be like, like email a prof. Like one of the accommodations is like extended deadlines, and I - and some of my professors - I can just email them and be like,

> hey, such thing happened, or I got behind on work, or I didn't finish my work, and they're like yeah - just get it in by the time I have to have grades in. And there's professors before I had official accommodations.

Some professors were accommodating with extended time on assignments before Rory's accommodations had been formalized with Disability Services. Thus, Rory had experienced both flexibility and inflexibility from professors.

The process Jamie took to request accommodations with professors was complex, and the responsibility fell fully on Jamie to make the request. Professors at Jamie's institution received a formal email notification that a student in class had accommodations; however, in order for Jamie to use their accommodations, specifically for exams, they needed to present a paper for their professor to sign.

> It depends on the time of year it is. If it's a normal exam, they get a blue sheet. So, a blue sheet is just a normal piece of paper that will have my information on top, and then the class information on the bottom, and the type of whatever the professor is - if it's open book and open note, and what's allowed and what's not allowed. I hand it to the office. If it's final exam time, then I have to get a green sheet.

Even with this process, Jamie had professors forget that they did not sign the blue or green test accommodations sheet. Jamie had professors "deny" they completed and signed the form. This placed Jamie in the position to self-advocate again for an already approved accommodation by contacting Disability Services for documentation that the professor had in fact signed the accommodation form.

Through their experiences, Jamie learned how to improve their communication with professors.

> Other people should know like that you shouldn't just fly off the handle and be like – I need this done before and you know just go into a tizzy and just start yelling at the professor or whomever is in charge. If they're not getting it right away because sometimes it takes people like a minute to process things, and it could be their first time doing things.

Jamie acknowledged that while they must go through a process to advocate for themselves, others who were working with Jamie might not have the familiarity with accommodations or working with students with disabilities. Jamie learned that having patience and empathy were helpful when someone did not understand that Jamie was practicing self-advocacy to have their needs met.

All participants associated self-advocacy with their formal accommodations through Disability Services. They also identified circumstances they needed to advocate further with professors in order to have their needs met or to provide information about students with disabilities.

Self-advocacy outside of accommodations. Self-advocacy may or may not work in the favor of the person advocating for themselves. Not every need the student has is reflected in their Disability Services official accommodations. Not every need is foreseeable, and students need to advocate for themselves outside of their work with disability services. Sometimes, self-advocacy results in the need being met. Sometimes, self-advocacy does not have the intended results.

Sometimes accommodations are limiting, and if the student with a disability needs something not reflected in their formal accommodations, faculty are not always flexible, even when the student advocates. For Casey, the pandemic created anxiety and stress since Casey needed to isolate from anyone other than their family. Casey's disabling condition makes them at a high risk of life-threatening complications if they contracted COVID-19. This was an emotional topic for Casey. When Casey wanted to work with a professor to adjust an assignment that was focused on the pandemic, Casey was met with resistance and inflexibility.

> They just didn't always understand I couldn't do something, or even this last semester, with Covid, it was getting really bad. I was struggling with a paper because this really

> hits close to home, and they just really didn't understand. The contacted the disability counselor that was filling in, and he was like, well she doesn't have that accommodations, and I'm like, you know whatever accommodation they wanted me to have, I don't know, but I just know I'm not going to sit and argue with you. You don't understand why it's so close to home. I know it's close to home for a lot of people, but it's different when you have an underlying condition. So, I'm just like, I just ended up doing it, you, know, after arguing a little but, but I'm like, there's nothing I can do, you know?

Casey did advocate and had to complete the assignment anyway with no accommodation. This professor would not make adjustments for Casey that were not part of their already formalized accommodations. This was discouraging for Casey; however, they determined their energy would be better placed in completing the assignment than arguing with the professor. The Disability Services department did get involved; however, they could not help adjust this assignment for Casey because the requested accommodation was not on Casey’s approved list of accommodations.

Situations come up in classes in which self-advocacy may require other students or departments to intervene. When Rory arranged with their classmate to complete labs, the professor wanted to assign Rory a lower grade than their partner did. Rory completed the calculations and the lab report while also staying in the lab with their partner during the experiment. The lab partner measured and poured the lab materials. At the end of the semester, the professor wanted to assign Rory a lower grade than their partner received. Rory and their partner worked together with Disability Services to advocate for Rory to receive the same grade as their partner.

> She and I both went to disability services together to be like hey, he’s grading me down for not doing the lab work, but we’re doing equal shares. We both agreed to this. Like you can, I’ll walk out of the, I literally like left the room and closed the door so they could have a private conversation with her to make sure I wasn’t making her say this. And she’s like ‘no, honestly, you do more than I do,’ which is true, but since I was the one asking for the accommodation, I felt like, hey, I’m asking you to do all of this specific sort of thing. I feel better if we, if I do more of the work.

The lab partner and working with Disability Services helped Rory resolve a lowered grade with the professor. The responsibility to advocate fell on Rory and the lab partner, even though no other accommodations were made or offered for the lab.

Jamie also worked with on- and off-campus officials to support their advocacy in different situations. When the pandemic started, some of the classes at Jamie's institution remained in-person, and others became fully online:

> I emailed during when the pandemic hit. When my classes didn't go remote, and I was like 'hey, I don't really feel comfortable being on campus being immunocompromised. Can I please get a remote class?' And they're 'like - yeah, we can totally do this.'

While this was not a specific accommodation listed for Jamie, the pandemic was also something no one had worked through before - students or Disability Services alike. Disability Services would not have known about Jamie's status of being immunocompromised; therefore, Jamie needed to advocate for their needs. Because of the circumstances with the pandemic, Jamie being immunocompromised, and their strong relationship with Disability Services, Jamie was able to have all of their classes moved to remote learning. Jamie was pleased with the support they received from Disability Services to help them navigate their courses when the pandemic began.

Sometimes, students need to advocate in order to make appropriate departments aware of needs or circumstances that arise. When Jamie was faced with a lab instructor and a lecturer who were insensitive to their disability, Jamie sought support from multiple departments on campus. They also required support outside of campus from a disability rights organization in their state since Jamie felt their grade in the class was affected.

> I told [Disability Services]. I filed complaints with the dean of students because I felt it was taking his [the professor's] aggression out on me through my grade at the end of the semester. So, because he kept messing with my grade - I noticed, and I was just like - just by miniscule points, and I'm like - why is he doing this to me? So, I filed something,

> and so I got a whole bunch of people involved. I got HR involved. I got his boss involved. It was a really big deal.

Jamie knew they could not navigate this entire situation on their own and understood that requesting support from other on-campus services and the disability rights organization was self-advocacy. Furthermore, Jamie's grade was updated because of their self-advocacy, and both professors received consequences for their actions; although Jamie was highly suspect if the professors were held accountable for the trainings the professors needed to complete.

Self-advocacy for Quinn extended beyond a personal situation. Quinn observed a class focusing on equity that they used language in the syllabus that was not disability friendly. They felt that the professor needed to make an adjustment for their own benefit as well as others in the class.

> She seems to be kind of mainstream forgetting about the disability part. Oh! Or maybe she even put ability - yeah, that's the other thing. When she did mention what she meant to say, she said ability. Like everyone - ability - are we talking about your skills in art class or your cooking? No, we're talking about specific categorization disability. So, I just told her, and actually another student had noticed that too. And when I told the professor, she was glad to hear that feedback, and she changed the syllabus to mention disability in the first sentence along with race, sex, gender. I feel like it's self-advocacy in reminding people - don't forget about disability. Don't put it on the tail-end of your train of oppressed groups.

Quinn's self-advocacy had the potential to affect other students as well. In addition, this was a learning opportunity for the professor, and Quinn was able to speak up to ensure the professor would adjust language in the course to make it accurate. Quinn was personally invested in the topic as a student with a disability. They also recognized the overall impact the change in language would have on the course and the learning opportunity it presented for other students.

Self-advocacy comes through communicating needs. Sometimes, those needs must be communicated because others are not aware the need exists. Other times, the needs must be communicated because others are being insensitive or unrealistic in their interactions and expectations. Purposes for self-advocacy extend beyond receiving accommodations because accommodations do not cover all needs for students with disabilities.

Comfort-level with self-advocacy. Participant openness with professors about their disabilities was directly related to their comfort-level with self-advocacy (see table 8). All the participants associated self-advocacy with requesting accommodations and communicating with professors. They also recognized that their academic success depended on their self-advocacy whether they were comfortable with it, or not. In addition, the students recognized other needs, purposes, and contexts for self-advocacy outside of requesting accommodations.

Table 8
Participant Level-of-comfort with Self-advocacy

Participant	Additional communication with professor	Comfort-level with self-advocacy
Jamie	Communicates early in the term and throughout the term	Very comfortable
Quinn	Communicates throughout the term	Comfortable
Casey	Communicates early in the term and throughout the term	Very comfortable
Jordan	Communicates early in the term and throughout the term	Comfortable
Rory	Communicates as needed	Uncomfortable

At its most basic level, self-advocacy is about speaking up for the self. Casey noted, “It’s me telling them, no one else.” The responsibility falls on the individual advocating. Casey elaborated on this: “Just advocating for my needs whether that be academically, physically, so asking for extensions on assignments or whatever, you know? Advocating that to the instructor, not having the disabilities counselor do it for me.” Jamie stated similar sentiments, “self-advocacy looks like to me, is me making sure I have what I need when I need it, and not allowing other people speak up for me." Furthermore, Jamie knew that self-advocacy was necessary and "in the best interest" of their degree completion. Quinn also highlighted the self and felt that vulnerability was important when asking for what they need, or "being forward' about their needs. Vulnerability provided a context and built an emotional connection when asking for what they needed by putting "some story behind it" that explained why. Quinn also felt that multiple methods of communication with the professor was helpful for self-advocacy. Providing the reason became important to create an opportunity for understanding, even empathy and put the person behind the advocacy instead of advocacy being an empty request.

Self-advocacy is deeply rooted in needs and someone making adjustments, or accommodations to meet those needs. Quinn explained, "When I think of self-advocacy, I think of services I'm trying to get. Something I want from people." For Quinn, self-advocacy was closely linked with accommodations. On the other hand, Rory saw self-advocacy as something that could benefit others instead of just being about Rory's needs.

> If it's something that helps everyone, I'll like, like the doors not working. When it was just me - when it was like basically no one else using mobility aids I knew about on campus, I mostly just complained about it. I didn't actually do anything about it. When other people, like when I had friends that also needed the door buttons to work, that's when I started putting in maintenance requests. So, like, it, I'm really bad at it.

Rory recognized that adjustments must be made; however, they had difficulty expressing this unless they knew others would benefit from Rory's advocacy. In addition, Rory distinguished the difference between complaining and advocating. Advocating is making a statement for something to happen whereas complaining does not have the potential for action associated with it.

Rory was not comfortable with self-advocacy. They did not receive accommodations through Disability Services until facing the choice of "accommodations or dropping out of school." Rory wished they had gone through the process earlier and attributed the delay to their own mindset that they were continuing to work on.

> My dad called me hop-a-long and gimpy and stuff like that. Just so I've gotten messaging my whole life that if I'm not - if I'm not like better than able-bodied people, then I'm worthless. So, overcoming that to actually see myself as worthy of accommodations is the biggest thing.

Thus, Rory's sense of self-worth as a student with a disability was affected when they received accommodations with their postsecondary institution. This was the result of Rory receiving messages that their disability made them "less." After receiving accommodations, Rory had to step out of their comfort zone when practicing self-advocacy.

> I feel uncomfortable. I feel awkward. I feel a lot like why can't we just make everything accessible to start with so I don't have to do this? I don't understand why me having additional challenges means that I have to do more work as well. If I didn't have to use mobility aids, I wouldn't have to worry about the doors not working. Lack of accessibility puts extra work on people who already have extra work just to do their ADLs.

Rory also saw that self-advocacy as additional work for students who use mobility aids. Self-advocacy takes additional time, and time is often limited for students who use mobility aids because of the activities of daily living (ADLs) often taking longer than for nondisabled students.

For Quinn, self-advocacy was something they felt comfortable with, but they faced their own barriers regarding their disability. Quinn had the accommodation to request extensions on assignments, but they wondered if they were doing their best with this accommodation available. Advocating for this accommodation presented an internal conflict for Quinn.

> It's hard to ask for extensions on assignments. That's difficult because I'll be optimistic about – I mean I'll think 'oh, I can get this done. I can crank through it. I don't need to ask for the extensions because in the past I have asked for it, and I still would get it

> done.' Or by that time, I mean, so that's one thing like that's not just about me asking for other - that's me like trying to challenge myself. It's hard to know.

Thus, advocating for this accommodation was a double-edged sword, and Quinn wanted professors to know the internal struggle they faced when requesting accommodations: "It's hard to ask for accommodations. They should know that. Like I mean - at least for me. We're not trying to get a piggyback ride from them. I worry that I'm doing that." The extension on assignments was a necessary accommodation that also placed a burden on Quinn when requesting it. Quinn feared assumptions about taking advantage of the accommodation as if they were not challenging themselves when requesting this accommodation. The pandemic reduced Quinn's need to self-advocate because of remote learning; however, Quinn felt that "self-advocacy, in one form or another is always needed."

While Jordan felt comfortable with self-advocacy, they also took a journey to begin self-advocating and accepting help from others.

> I definitely have gone through the process of learning to accept help. I got my wheelchair when I was 17, and it took me probably four years to finally be like - OK, somebody helping me doesn't mean I can't do it, or I'm unable to. It just means that they're there to support me and not in a way that I can therefore have more energy to focus on learning or focus on other things. So, my current attitude to assistance is that yeah - it's really there just to help you so that you can focus on actually learning the content. It's difficult to draw from a lecture if you're struggling to write notes. So yeah - that's my view on assistance.

Jordan determined that they needed to self-advocate so that they could focus on their academics. Rather than worrying about how they were going to access materials, they could have assistance and focus on learning the content. Even though Jordan became comfortable with self-advocacy, they still experienced frustrations with self-advocacy because of slow progress in creating a more accessible world. Jordan went on to explain:

> It does make me frustrated, but I'm also just the personality where I roll with the punches literally, so it doesn't really bother me too much. We live in a world that unfortunately wasn't made for us. And slowly that's changing, but it's still a long work in progress.

Despite their frustrations with access and the need to self-advocate, Jordan feels confident and empowered when advocating for their learning needs.

Likewise, Jamie expressed the importance of self-advocacy while finding it frustrating at times, especially when they were not being heard.

> Like most of the time, I feel meh because it's just something I have to do. Sometimes I feel frustrated because people don't listen to me, and I keep having to have the same conversation over and over again, and it's just repeating myself. It gets frustrating and tiring to do, and it's not fun. It's not a good way to spend my time or my professor's time, and so I think it's not productive when they're not listening, so that's when I typically go to [Disability Services], and I'm like, you have to deal with it. Tag. I'm out.

Self-advocacy did not always meet the intended outcomes for Jamie, and to keep a focus on their studies, they looked to the support from Disability Services when they felt they were not being heard. This support was important for Jamie so they could focus on their education instead of navigating barriers on their own.

Self-advocacy has become necessary for academic success and progress for students who use mobility aids, even if it poses challenges and frustrations. Casey felt accomplished and independent when practicing self-advocacy.

> I feel accomplished, especially if it goes well. I just get that sense of independence, you know I don't feel in other ways. So that's always nice, and you know, it just, I just feel like it goes to show people that don't necessarily think that disabled people aren't smart that you know, we are pretty smart, and you know, we can be as independent as an able-bodied person, you know, with some limitations.

Casey understood that self-advocacy would not go away because it was something they will "have to do," despite sometimes feeling like "just another person in the pot," and said, "that the more I advocate for myself, the better off I'll be." Jordan knew that they would have challenges related to their disability outside of postsecondary education, so they saw the value of self-advocacy beyond earning an undergraduate degree.

> I have those challenges and those extra hurdles that I have to get over sometimes, every single day, but I have to face that in the real world instead, so there's no divide, and I have no struggles versus in the real world. I have all of these struggles. It just kind of blends together.

Jordan acknowledged that their disability and barriers to what they want to accomplish would still exist after they complete their degree, which was why self-advocacy would continue to play an important role in Jordan's life.

Self-advocacy took many forms for participants, and participants had many feelings around self-advocacy. Participants' individual experiences with self-advocacy prior to their postsecondary education as well as their own navigation of their identity as a person with a disability influenced their comfort level and ability to practice self-advocacy. Often, self-advocacy was a response to a situation that has created a barrier to learning, and this barrier cannot be solved only by the student. Self-advocacy includes involving at least one other person or department, perhaps more depending on the circumstance. Regardless, self-advocacy is a skill that students will need throughout their lives because they live with a disability.

Knowledge for Self and Others

Participants noted their individual knowledge and attitudes about disability. They also explained important knowledge they would like others to understand about living with a disability. The knowledge and understanding they shared point out concepts that can help them succeed in the postsecondary environment.

Knowledge to advocate. In order to advocate for themselves, students with disabilities must have knowledge of their needs and knowledge of their rights. Participants also noted that they need support from others in order to advocate for themselves. Students who use mobility aids must have understandings about themselves and the world around them. These understandings help them problem solve and advocate for themselves. Self-knowledge is important for self-advocacy because the student needs to be familiar with their needs, abilities, and limitations.

Students with disabilities have rights that are important to self-advocacy and the self-advocacy process. These rights set up the foundation for accommodations and are intended to create an equitable learning environment for students with disabilities. As Jordan noted, their rights and accommodations placed them "on the same playing field as able-bodied individuals." Jamie also explained that students with disabilities have the right to "equal access to education and materials as long as it's not causing [the institution] undue harm." Casey highlighted students with disabilities "have the right to confidentiality." Only the Disability Services counselor and anyone the student self-discloses to have a right to know and about students' diagnosis, accommodations, and background. Those with this information must protect the student by not sharing the information with others. Casey and Jordan also explained that professors could not deny approved accommodations.

Quinn described self-knowledge as "what disability means to me. Like I need to have a good sense of who I am as a disabled person" in order to advocate. This involved familiarity with needs as well as understanding personal best approaches for advocating for those needs. For instance, Quinn preferred advocating in-person with professors so that they can read the professor's body language and hear the professor's tone. Then Quinn could make necessary adjustments to their approach in order to ensure the professor understood what Quinn was advocating. This self-knowledge was also important because as Casey said they need to "understand the meaning of different accommodations are – what can I get with those?" The self-knowledge was important because the student was responsible for requesting the accommodations from professors; therefore, the student needed to know what they ‘can get’ or what their accommodations would do for them.

Knowledge of their accommodations and reasons for those accommodations are both important in selecting the appropriate accommodation to use for different circumstances and even more important when students advocate for their accommodations. Casey knew that their familiarity with their rights as a student with a disability and their familiarity with accommodations set an important boundary:

> I definitely have to know the rights and limits and understand what the meaning of different accommodations are – what I can get with those. Otherwise, I can, overstep what they are. And I have to have a – just an overall understanding of whatever I'm advocating for, because if I don't understand it, or if I don't – I could end up getting myself into more trouble than it's worth because of not understanding the concept of it.

Casey saw that they have a responsibility to ensure they do not take advantage of their accommodations, and that they maintain integrity when advocating for their accommodations. Quinn also recognized that their accommodations must be “reasonable” and relate to Quinn's needs. They must make sure that they know what they are “capable of” in order to ensure that accommodations are reasonable. Like Casey, Quinn realized that they must responsibly communicate their accommodations with their professors.

> I have a right to my accommodations, but I have to be reasonable about how I communicate with my professors, like that accommodation to have extensions on assignments. I can't just like not be talking to the professor and then a week after it's due, to say, oh, I have an extension on my assignments. I should be able to turn this in. Like I need to be proactive about it.

Timing was also important when students with disabilities requested accommodations with their professors. This must be in advance of the need for the accommodation. Thus, while students with disabilities have rights, they also have responsibilities in order to ensure they are using their rights appropriately.

Students with disabilities also have to be self-aware of how their self-advocacy is working. They need to determine whether they need support from someone else on campus, like Disability Services. Jamie felt as if some professors did not want to listen to them on different occasions, so Jamie needed to contact Disability Services for support in situations with different professors.

> It might actually take you going to the [Disability Services Office] … to have them advocate for you because some professors won't want to listen to me. They want to listen to other staff at the college, so it's better to know what you need then – some professors like to know what you need before you come to them.

Jamie knew when they were not able to get through to professors while also knowing that they needed to request additional support. Quinn also placed an emphasis on knowing that Disability Services would support them if needed when requesting an accommodation.

Rights for student access on-campus is important for students with disabilities; however, students with disabilities need to be able to focus on more than their rights. According to Quinn, rights were focused on "services or physical access to places." It did not cover socialization or stigma, which also create barriers to a student's education. Quinn explained too that students with disabilities need to think ahead when considering their mobility. They explained that "all of the thinking, the like adjustments a disabled person is making in their head and on how to react to people" was happening as they advocate on and off-campus. From Quinn's perspective, people with disabilities were regularly exploring their thoughts and developing self-awareness. This was part of Quinn's preparation prior to self-advocacy:

> I feel like I live a lot of existence in my head after all of these ideas are there and about what I should say or shouldn't say. To like – how I'm going to communicate with people to let them off easy to just go along or whether I'm actually going to try to educate them.

These were thoughts Quinn explored prior to self-advocating and continued to explore while advocating and thinking of their rights and accommodations. They were analyzing the communication and making determinations about the direction the conversation needed to take. As they continued the conversation, they adjusted how they communicated and even possibly the goal associated with the communication.

Awareness of rights and awareness of self are two major components of self-advocacy. Students did not want to take advantage of their accommodations and recognized them as a need that they must advocate. The advocacy process takes a lot of self-knowledge and analysis and judgement on whether to adjust the conversation. When students are not able to have their needs met through their own discussions, they may have to request support from Disability Services. In all, students with disabilities need knowledge of themselves in advance of advocating for themselves and while they are advocating for themselves in order to make adjustments and meet their goals.

Knowledge for others. Students who use mobility aids must advocate for themselves on and off-campus. Sometimes moments of self-advocacy become bigger than the student and end up as opportunities to advocate for all students who use mobility devices. This places the responsibility of access on the students with the disabilities instead of on the institution altogether. Furthermore, lack of access comes in many forms such as physical barriers, and stigma from staff, faculty, and peers about people with disabilities. These barriers affect students academically, socially, and personally.

The damage of assumptions results in stigma about people with disabilities. Rory explained the importance of not making assumptions about incompetence and instead “presume competence” for people with disabilities. Meaning instead of assuming a person with a disability cannot do something presume they can. Assumptions about competence have affected Rory in the classroom, outside of the classroom, and in their interactions with people who want to help.

Jamie also faced assumptions about different roles they had in campus organizations. They wanted people to know that students who used mobility aids “don’t all come out in one cookie-cutter shape. We’re all different, and that you – that people will find us doing all different types of things.” Jamie experienced assumptions about their abilities as a person with a disability and was questioned about their involvement in different campus organizations. Others went as far as to assume that Jamie was only allowed to participate in different opportunities so the organization was being inclusive, not because Jamie was a competent and talented individual with a variety of strengths to use and share. Quinn also noted that it was important to recognize what people with disabilities can do, while noting that there were different things that students who use mobility aids “feel good about.” While students with disabilities have varying needs, they also have varying abilities. Casey captured this:

> Having a disability doesn’t prevent you from going to college, doesn’t prevent you from getting a good grade, doesn’t prevent you from getting a job. It’s just that we have different obstacles that we have to overcome and whatever, whatever someone can do to help us when we ask, or when it looks like we’re struggling greatly helps us and makes our day easier. So, I just encourage people to do their best. Help when needed, but you know, don’t overstep either. Make sure that you ask us first because I’ve always – I’ve had people that, they just start doing something for me, and I’m like, no – let me try it. Let me, you know, attempt to do it, but just try and be helpful.

Students with disabilities are faced with assumptions from their postsecondary instructors and peers. These assumptions can have damaging effects. They also present opportunities for growth from others through education.

Educating others about disability was a delicate topic to say the least. While participants in the study noted the importance of additional training and professional development for campus employees, participants also noted that they often felt responsible to educate others about students who use mobility aids. Quinn explained that often the responsibility to educate fell on the students with disabilities:

> There’s a lot of pressure to educate – like disabled people to educate other people and nondisabled people or people who are disabled – they aren’t well-versed in the disabled community, or they should do a little research themselves, like not always asking.

Educating others came up often with the accommodations process. Jordan also saw the need for nondisabled members of campus to be educated because “knowledge changes actions,” and Jordan would like to see specific professional development for professors focusing on students with disabilities. Moreover, Jordan would like that training to be something that could be placed in practice by postsecondary instructors. While Jordan did not feel the barriers they experienced inhibited their education, they did feel that “the little barriers of like just treating somebody with respect and being aware of how your actions are disrespectful, even if you’re not intending it” affected their outlook. Some of this respect was demonstrated through the language used about people with disabilities. Many terms and phrases exist to identify students with disabilities. Rory expressed dismay toward many of these terms and prefers when they were identified as having a disability:

> And they, they use all the weird ones. Like you’re just differently-abled, or alter-abled, and it’s just not a dirty word! You can say disabled. Cuz what you’re really saying when you’re avoiding saying the word that disabled is lesser somehow, and you don’t want to say that I’m lesser. You feel bad saying that. Which I’m like, I appreciate the sentiment, but also, I’m not less because I’m disabled.

In their words, Rory also expressed the importance of using the term disabled because someone who was disabled was not less than someone who was not disabled. Quinn also found the use of various terminology for disability offensive. In fact, they would prefer a different tactic when referencing students with disabilities:

> Maybe we should start asking like how do people with disability identify? I don’t – I don’t really – I mean, don’t say special needs. Don’t say like differently abled, or [they have] physical challenges. I don’t like that word, challenges. It’s so pediatric in my head. Like [they have] physical challenges. [They have] learning challenges. I mean, I already don’t like the term special needs for kids, but then certainly don’t use that with adults. How – we are already … infantilized.

Rather than assuming a specific term be used for someone with a disability, Quinn encouraged people to ask how a person prefers to identify. Terminology is another area which training could help with identifying and working with students with disabilities to create an inclusive and welcoming environment.

Chapter Summary

From balancing demands of postsecondary education with activities of daily living (ADLs), working with disability services, problem-solving around barriers, and advocating for accommodations and other needs, students who use mobility aids navigate multiple systems in order to reach their academic and career goals. While students with disabilities may need accommodations, Quinn, Jordan, and Rory all express that students with disabilities also need respect and an equal opportunity toward their education. Rory explains, “I just want to be on equal footing to everyone else. I just want to like – like school isn’t easy. I know that. But all I want is for it not to be harder for me than everyone else.” Processes within the postsecondary system, physical barriers, and stigma from professors, staff, and peers sometimes make postsecondary education challenging for postsecondary students who use mobility aids. While all postsecondary students must advocate for needs, students who use mobility aids are placed in positions of making choices about whether to advocate, problem-solve, or move on from the situation entirely. In other words, they must choose their battles. They continue navigating a system that was not built with students with disabilities in mind, a system that seeks to “normalize” disabilities through an accommodations process for which students with disabilities must advocate toward having an equitable postsecondary experience.

CHAPTER 5: DISCUSSION AND RECOMMENDATIONS

Study Overview

The purpose of this phenomenological study is to understand the lived experiences of postsecondary students who use mobility aids and their use of self-advocacy within the postsecondary environment. This chapter analyzes the findings of the study through discussing the research questions, drawing conclusions, and making recommendations. This study addressed the following questions:

1. What are the lived experiences of postsecondary students who use mobility aids during their postsecondary education?
2. What are the experiences postsecondary students who use mobility aids have with self-advocacy in the postsecondary setting?
3. In what ways do postsecondary students who use mobility aids interpret their experience with self-advocacy in their postsecondary education?

The following analysis will discuss each question and include data from the study as well as literature related to the findings.

Discussion

What Are the Lived Experiences of Postsecondary Students Who Use Mobility Aids During Their Postsecondary Education?

Students who use mobility aids have a variety of experiences related to their access on campus as well as their interaction with faculty, staff, and peers. In addition, students who use mobility aids have a variety of ideas, knowledge-levels, and feelings about being a student with a disability. Access for students who use mobility aids involves much more than structural access to buildings and physical spaces. It also includes planning, empathy from professors and peers, and a supportive network.

Disability has been influential for all participants in this study. Data from this study explains that students who use mobility aids must place their health before their education. They must develop schedules to manage self-care and activities of daily living (ADL) in addition to their academics. In fact, participants compared managing their disability and health to a full-time job - the most important full-time job they could have. The varying ADLs of participants demonstrate the complexity within the population of postsecondary students who use mobility aids. The complex needs of this population must be understood (Mertens, 2009); however, needs of postsecondary students who use mobility aids are often not recognized by professors or other campus officials (McCune, 2001). This lack of recognition affects the attitudes of students with physical disabilities while also placing them in situations to make determinations about whether to prioritize academics or their health. For participants in this study, health was the primary concern. In addition to decisions about their own wellness, disability affects other areas of the postsecondary experience for students who use mobility aids. Wessel et al. (2015) explain that students who use wheelchairs often select their postsecondary institution based on the physical access at the institution, services through disability services, and majors offered. Participants in this study did not select their institutions initially on the physical access. They made decisions about their postsecondary education based on their disability, but these decisions related to selecting an online program and changing majors. The decision to attend a community college prior to a four-year institution was a disability-related decision for some participants and a financial decision for other participants. While Myers et al. (2014) also established that students with physical disabilities consider physical access when selecting a postsecondary institution, the participants in this study selected their institutions for other reasons and encountered architectural barriers that affected their ability to access classes.

Even with laws to provide access for students who use mobility aids, their opportunities to participate fully in courses are not always available. Campuses are not set up for students who use mobility aids. Examples from participants indicated that access reflected a preference for nondisabled students as established in McRuer's (2013) crip theory. Often, accessible features (ramps, automatic door buttons, and elevators) are added to buildings after they are built instead of during the building process. This retrofitting makes some access inconvenient, alienating, even burdensome for students who use mobility aids. It also perpetuations the idea that disability is an afterthought instead of at the forefront of planning and investment in a diverse student population (Dolmage, 2017). Participants in the study cited a variety of examples of poorly placed ramps and elevators in buildings forcing students who use mobility aids to take longer routes to classes and appointments than their nondisabled peers. Low (1996) and Pearson and Samura (2017) explain that students with physical disabilities often have to take a longer route than their nondisabled peers, or they are prohibited from shortcuts to get to their destination on campus. On the contrary, Aquino and Bittinger (2019) suggest that the access to structures on campus for students with physical disabilities reduces stigma and offers fewer limitations when navigating campus. The frustrations with access experienced by participants in this study were consistent with the findings of Hadjikakou and colleagues (2010), and similar to Myers and colleagues (2014). Both this present study and previous studies found that structural barriers were common among students with physical disabilities. In addition, access into classrooms also often proved frustrating for students in this study. Classrooms were often overcrowded with furniture, access to lecture halls was limited, and the overall organization of the classroom created barriers like Myers et al. (2014) describes in their study. This further supports McRuer's crip theory (2013) in highlighting that access focuses on people without disabilities as the standard and reinforces that disability is considered abnormal as defined by the medical model of disability. Thus, adjustments must be made to accommodate because features are designed for nondisabled access. Further findings also explain that the organization of classroom space presents limited choices for students who use mobility aids. Limited choices can result in the students who use the mobility aid feeling as if they are drawing attention to themselves when they already have limited privacy because of the visibility of their disability.

Students with physical disabilities are easily identifiable. This makes students with physical disabilities susceptible to ableism and disablism. While ableism places emphasis and value on the able-bodied, disablism focuses on the stigma of disability with the attitude that nothing could be worse than being disabled (Dolmage, 2017). Physical barriers and attitudinal barriers from peers and professors create ableist environments that perpetuate stigma around disability. In fact, Yuknis and Berstein (2017) establish that stereotypes are often the first barrier students with disabilities experience. Stereotypes are rooted in ableist and disablist ideas. The physical barriers experienced by participants in this study - like poor snow removal, broken automatic door buttons, steep ramps, crowded classrooms - send ableist and disablist messages that campus is built for nondisabled students, and physical access is retrofitted as a hindsight so that disabled students have access (Dolmage, 2017). This messaging extends beyond physical access, and this study provided numerous examples of ableism from peers, especially in the form of unsolicited help. Pawlukewicz (2011) explains that people with disabilities are often perceived as having limitations and needing pity, which is often the impetus for unsolicited assistance. Professors demonstrated ableism and disablism with inflexibility with accommodations, denial of accommodations, and seemingly innocuous examples like taking seating choices away from the students who use mobility aids. The ableism reflected by negating accommodations has a deep connection to perceptions about people with disabilities as has been influenced by institutional systems throughout time (Dowrick et al, 2005; Gabel, 2010). In fact, McRuer (2013) points out that access must be looked at on many levels and must include attitudes about people with disabilities instead of access being check marks on tasks completed to make spaces physically accessible. In addition, ableist and disablist mindsets influence students with disabilities, and participants in this study did at times wonder about whether they belonged in higher education, or whether using or not using accommodations made them more or less disabled. This is an example of nondisabled attitudes having power within an institution. While this may not be decision-making power, it is underlying systemic power held by nondisabled because institutions are created with them in mind. Mertens (2009) identifies this power imbalance as a form of oppression that creates inequities on campus. Participants considered perceptions of others, especially their professors when navigating coursework and accommodations. This is one of the reasons students with disabilities need a network of students like them on campus.

When students with disabilities develop relationships with other students with disabilities, they develop a support network. Connecting with peers is an important part of postsecondary education. For postsecondary students who use mobility aids, their peers are students in their classes, organizations, teams, and other groups. The peers may or may not have disabilities. For postsecondary students who use mobility aids connecting with other peers who have disabilities - specifically physical disabilities - is important. They can provide a support network and opportunities for students to share information and relate to one another. Burwell et al. (2015) finds that establishing relationships with other students with disabilities is important, and Myers et al. (2014) further support these relationships because they offer a safe place for students to gather and express themselves. Likewise, Rice et al. (2004) establish that when students with disabilities build connections with one another, they find common ground that reduces feelings of isolation by providing an opportunity to talk about things that would be considered socially unacceptable with nondisabled peers. Data from this study indicates that connecting with peers who have disabilities provides opportunities for learning, leadership, growth, and the understanding that they are not alone in their feelings or experiences. Mertens (2009) supports this community connection since it focuses on the strengths within individuals and the disability community while also giving voice to the community to create change.

The lived experiences of postsecondary students who use mobility aids varies from student to student. Often, students with physical disabilities do not register with campus disability services though. Barragan and Nusbaum (2017) explain that students sometimes do not want to register with disability services in order to avoid social and academic stigma. In this study, all participants registered with disability services during their postsecondary education. Stigma and their personal perceptions of their disabled selves did create some conflict with using disability services and requesting accommodations. Sometimes, there was the feeling of being too disabled or not disabled enough or feeling as if they were taking an easy way out by requesting and using accommodations. Lynch and Gussel (1996) also describe similar stigma behind disclosing disability in order to receive accommodations. These attitudes about disability and accommodation are rooted in the deficit mindset of the medical model of disability, and the transformative paradigm seeks to challenge this mindset and the structures supported by this mindset (Mertens, 2009).

Experiences with disability services were all different for participants because each campus' disability services department has its own requirements for registering and processes for receiving and requesting accommodations. This aligns with previous research from Stumbo et al. (2009) and Rocco and Collins (2017). Data from this study shows that students who transfer from one institution to another must learn and follow new procedures and guidelines for registering with disability services, receiving approval for accommodations, and using those accommodations. Thus, receiving accommodations is the responsibility of the individual, not the institution as McRuer (2013) highlights in crip theory. McRuer (2006) also points out those accommodations processes reinforce the idea of something being done “for or about” students with disabilities because they need assistance in order to be successful in their environment. In addition, accommodations they received approval for at one institution were not necessarily available to them at a different institution. Some of the institutions students transferred between were in the same college and university system. This inconsistency was also reflected in the knowledge of employees working in the disability services department. According to study participants, some employees in disability services were helpful and highly competent while others seemed to take a one-size-fits-all approach to accommodations. No two disabilities are alike, and the one-size-fits-all approach denies the complexity of disability. Fleming et al. (2017) highlights similar problems with accommodations - inflexibility, limited options, and lack of personalization of accommodations. Dowrick et al. (2005) and Dolmage (2017) attribute these problems in disability services to the department being under-supported with funding and staffing.

Not all of the experiences on campus have been negative for participants though. Each of the participants found people on campus with whom they built strong rapport whether those individuals be professors, disability services employees, or disabled and nondisabled peers. Furthermore, participants also highlighted some of the physical access they appreciated about their campuses. Fleming et al. (2017) also discuss the gratitude students with physical disabilities reflect when they find effective access and support. The supports students found on campus are strengths within each student's postsecondary environment. Mertens (2009) explains that strengths are a starting point for making effective changes.

Disability has been influential in different ways for each participant. For some participants, disability influenced their major areas of study. For other participants, disability affected their perception of registering with disability services and using accommodations. Students with physical disabilities have unique and varied experiences on postsecondary campuses (Enright et al., 1996; Hadley, 2011; Finnis et al. 2014; Myers et al., 2014; Aquino et al., 2017). Students who use mobility aids also have unique experiences with self-advocacy. Self-advocacy is also directly tied to the student's lived experiences. In other words, self-advocacy and lived experiences for postsecondary students who use mobility aids are integrated with one another.

What Are the Experiences Postsecondary Students Who Use Mobility Aids Have with Self-advocacy in the Postsecondary Setting?

Self-advocacy means having a voice and speaking up for personal needs to be met. Participants echoed this understanding of self-advocacy throughout the study, as do multiple scholars: Garner & Sandow (1995); Field et al. (1998) Buchanan (2006); Rocco & Collins (2017). Douglas (2018) shares a similar definition of self-advocacy to the participants in this study with the addition that self-advocacy does not "[compromise] the dignity of oneself or others" (p. 37). Participants also explained that self-advocacy is an important part of their postsecondary education. It is something that they need to do as students who use mobility aids, and something they will need to continue doing as they move into the workforce. Self-advocacy is necessary for the success of students with disabilities (Fielder & Danneker, 2007; Angell et al., 2010; Garrison-Wade, 2012; Liasidou, 2014). While the needs of students with physical disabilities varies, the overall purpose for self-advocacy is similar - to have needs met.

Participants had varied experiences with self-advocacy prior to their postsecondary education. Some had formal self-advocacy instruction and support in K - 12 education. Not all students who were disabled throughout their K - 12 education received support or instruction in self-advocacy though. In addition, late onset of disability for participants in this study did not mean that self-advocacy skills were weak or incomplete. In fact, participants in the study that acquired disabilities after K - 12 education indicated comfort and confidence with self-advocacy. Just because someone has had a disability and practiced self-advocacy throughout most of their education does not mean that self-advocacy comes easily for them. Previous research is inconclusive about the success of direct self-advocacy instruction in K - 12 and postsecondary education (Poehls, 2009; Daly-Cano et al., 2015). Self-advocacy can still be a challenge, regardless of the level of experience with it. On the other hand, it can also be a strength for individuals and the disabled community, which is an essential component of Merten’s (2009) transformative paradigm. Regardless of the background students with disabilities had with self-advocacy, they all learned how to advocate through personal experiences and trial and error.

Overall, students with physical disabilities advocate for themselves in order to have their needs met. Black et al. (2015) and Douglas (2018) also see self-advocacy as directly related to the student’s needs. In this study, accommodations were a primary discussion point when participants described self-advocacy. Participants advocated for themselves in many instances; however, when asked to describe examples of self-advocacy in their postsecondary education, participants brought up examples specific to their approved accommodations. Ultimately, they felt that accommodations were the primary method of meeting their needs. While they recognized other needs that did not require accommodations and that the world is not necessarily fully accessible, they often did not identify communicating these needs as self-advocacy. For instance, Jordan did not recognize working with their advisor to change their schedule because a classroom was not accessible as self-advocacy. Likewise, Jamie did not see asking others to help them over a steep bridge to get to class as self-advocacy. In some cases, they solved problems on their own instead of advocating for themselves like when Rory created their own spot in a lecture hall instead of requesting an accessible space. In other cases, when they may have initiated self-advocacy or advocated more in a situation, they did not continue advocating. Either they did not want to spend more time on the situation, or they could not spend more time on the situation. Time self-advocating would sometimes conflict with studies and self-cares, so students had to choose which was most important. In some of these cases, participants were placed in a position in which self-advocacy was an action to challenge “unequal power relationships” (Mertens, 2009, p. 10), like when Rory needed to advocate for a lab grade equal to their partner and Jamie needed to advocate to ensure their grade was accurate. Both of these examples also demonstrate McRuer’s (2013) idea of preference for nondisabled structures and practices since the participants were directly addressing disability discrimination.

Angel, Stoner, and Falk (2010) explain that there is a fine line between problem-solving and self-advocacy. Problem-solving sometimes is the result of self-advocacy or prompts someone to self-advocate. As Quinn pointed out, even when students who use mobility aids are not advocating, they are thinking about their next steps, what might be in the way, how will they navigate barriers, who they might need to talk to, and how they will talk with that person. Thus, self-advocacy is often on the minds of students who use mobility aids. They find themselves constantly having to think ahead in order to ensure they can navigate a variety of situations and maintain their dignity. This is similar to Angel and colleague's (2010) explanation that students with physical disabilities must be able to identify when they need to ask for help. Participants also recognized how their self-advocacy could benefit others. Thus, self-advocacy becomes something for the greater good and is a strength within the community. Sometimes, participants' efforts at self-advocacy were not met. That did not discourage them from further self-advocacy though. The persistence and resolve of participants as well as their focus on how they could benefit the disability community on campus through self-advocacy is a strength indicated by participants that is a place to draw on for meaningful changes that creates a welcoming and equitable environment for students with disabilities.

Students with disabilities must have self-knowledge and support in order to advocate for themselves. Participants determined that they needed knowledge of the accommodations approval and request process, knowledge of their rights, knowledge of their needs, knowledge of how their needs change over time, and knowledge of themselves as a student with a disability. Previous research identifies knowledge of self, knowledge of rights, self-awareness - including strengths and weaknesses, and coping strategies as essential to self-advocacy skills (Test et al., 2005; Walker & Test, 2011; Barber, 2012; Denny & Daviso, 2012; Daly-Cano et al., 2015; Vaccaro & Kimball, 2017). When students with disabilities have this knowledge, they have the opportunity to prepare themselves for self-advocacy. In other words, they can be proactive by requesting accommodations in advance, even when needs change. Often, situations arise when students need to advocate for themselves, and they have to react instead of being prepared to self-advocate (Daly-Cano et al., 2015). This makes knowing a supportive representative on campus important to help with advocating, like when Jamie needed classes changed to online instruction at the beginning of the COVID-19 pandemic. Communicating with a campus official can help with navigating challenging situations, even if they were out of anyone's control.

Communication regarding self-advocacy takes on a variety of forms and purposes. Once students have disclosed their disability with disability services - often the first act of self-advocacy on campus - they receive approval for their accommodations. This initial disclosure is also part of the communication process that is part of self-advocacy (Rocco & Collins, 2017). Self-advocacy also involved participants communicating with professors. Participants felt they needed to be open about their disability by notifying professors about it, even if disability services provided a letter explaining accommodations. The accommodations letter can create a barrier to the relationship between the student with a disability and professor (Barragan & Nusbaum, 2017). For participants, openness was a necessary step to build rapport by sharing their story, which helped build a connection and made requesting accommodations easier. The need to tell a story of their disability and explaining why they needed different accommodations is not a requirement of the accommodations process. Students only need to present the documentation from disability services, and sometimes disability services sent that letter to faculty. Samuels (2017) explains that stories as a part of disclosing disability creates an opportunity for understanding between the professor and student. Openness through stories and explanations about their disability were methods of communication determined by participants. In some ways, participants felt that they owed explanations and delivery of personal information (Aamlid & Brownfield, 2019) to faculty, even if this was not a requirement of the accommodations process. Mertens (2009) explains that openness in communication creates trust, like the trusting relationship students in this study were seeking with their professors. Providing this background made requesting accommodations easier and gave students the feeling that accommodation would be better met if they disclosed their disability to their professor early in the term.

Some of the experiences participants had with self-advocacy did not involve compromising their dignity while other experiences demanded they sacrifice their dignity, or the situation forced them to sacrifice their dignity before even being able to advocate for themselves. The COVID-19 pandemic shifted self-advocacy for students with physical disabilities. For the participants in this study, remote learning meant that more of their needs were being met because they did not have to worry about being late to class, overcrowded classrooms, broken door buttons, broken or limited elevators, snow removal, or a myriad of other considerations students needed to make when taking classes in-person. Sacrificing dignity came into play when students advocated and their request was not granted, or when students found themselves moving from self-advocacy to arguing for their needs. Barriers not only place students with disabilities in a position to advocate for themselves; barriers take away dignity from the student before the student has an opportunity to advocate. These barriers reinforce nondisabled power structures, mindsets, and expectations as well as the message that students with disabilities are not welcome within the postsecondary environment. For instance, Jamie was asked repeatedly to move up rows in a lecture hall in front of classmates. Likewise, Rory’s professor requested a note-taker for them inappropriately. The need to self-advocate puts the responsibility on the students with physical disabilities to create an accessible environment. Accommodations are meant to “level the playing field” for students with disabilities; however, the students themselves are in charge of making the equitable opportunities through self-advocacy.

Question 3: In What Ways Do Students Who Use Mobility Aids Interpret Their Experience with Self-advocacy in their Postsecondary Education?

Postsecondary students who use mobility aids need to advocate for themselves for a variety of reasons. Self-advocacy is necessary for all students with disabilities because the world, including postsecondary campuses, is not built for people with disabilities. Students find themselves in positions to navigate their documented needs and accommodations while also advocating when other barriers to their education arise. In fact, they are placed in positions to determine whether to solve problems for themselves or take the time to advocate.

The first acts of self-advocacy during postsecondary education are usually with disability services so that the student receives accommodations. The purpose of accommodations is to provide equitable learning opportunities for students with disabilities. While participants in this study expressed that their accommodations were necessary, they did not feel that accommodations created equal opportunities for them. Rocco & Collins (2017) also assert that the accommodations process creates an additional barrier for students with disabilities. Linton (2006) also highlights that students with disabilities must take extra steps for equitable opportunities. In fact, the accommodations approval process, and the process of communicating to receive accommodations were identified as extra steps and processes to follow that took time away from other priorities. Thus, the process of requesting accommodations was a barrier in and of itself. The accommodations available did not always meet the needs of the participants, which is also a finding from Carroll-Miranda (2017). Instead, accommodations are sometimes perceived as available in order to honor the rights of the students with disabilities and fulfill the responsibility of the institution to provide accommodations.

The accommodations process involves a lot of steps and paperwork that is time-consuming and overwhelming. In some cases, it is easier for the student with a disability to solve the problem on their own instead of seeking accommodations with disability services. Participants recognized receiving accommodations as a bureaucratic process involving multiple steps (Wehmeyer & Shalock, 2001). Jordan noted that the process of receiving accommodations on-campus required more documentation and effort than applying for financial and insurance support from a government program. Likewise, Quinn did not want to go through the bureaucracy of requesting an additional accommodation of storage space for course materials.

Advocating with disability services is different from advocating with professors. The processes are different; therefore, the approaches students take must be different. Carroll-Miranda (2017) describes advocacy with professors as part of continuous disclosure necessary for access. Regardless of whom the student communicates with, they must have familiarity with their rights and their needs (Test et al., 2005). When communicating with disability services, the student has a specific set of processes they need to follow, including submitting appropriate documentation and selecting accommodations. On the other hand, advocating with professors has no rules or guidelines. Both of these processes do involve navigating power structures and roles.

Advocating with professors involves some risk though (Douglass 2018). A formal process is not outlined other than providing documentation of accommodations from disability services when advocating with professors, so participants face uncertainty. Barnard-Brak et al. (2010) describe the process of disclosing disability to faculty as intimidating too. Even participants who feel comfortable with self-advocacy found advocating to professors intimidating. Participants explained that they normally did not know what the outcome of disclosure would be with professors, and participants did not want to be misjudged nor stigmatized. This uncertainty is a source for feelings of intimidation and anxiety. Dowrick et al., (2015) explain that the process is intimidating because of the stigma associated with accommodations. Some participants in the study explained they did not know how their professors would respond, and they did not want to be seen as taking advantage of their accommodations. Sometimes, the request was met. Other times, the accommodation was challenged or mishandled, like when Rory's professor requested a note-taker without protecting Rory's privacy. This was a violation or Rory's privacy and created an embarrassing situation for Rory. McCune (2001) also explains the risk of humiliation when students advocate for their accommodations. Because of the visible nature of their disability, Quinn felt that disclosing their disability to professors was a double disclosure. Participants in Barnard-Brak et al.'s (2010) study shared similar experiences. Students who use mobility aids have visible disabilities, and they do not have privacy in disclosing their disability; therefore, they face stigma before they disclose their disability (Dowrick et al. 2005). The potential for stigma also affects the student's perception of their disability and accommodations.

Sometimes, participants stood in their own way when deciding not to advocate for themselves. When deciding whether to use certain accommodations, participants sometimes wrestled with wondering whether they needed the accommodation or not. Would the accommodation make them look "too disabled"? If they completed tasks on their own, would they look "disabled enough?" This self-talk has deep roots in stigma, and ableism like the accommodations process. These processes and attitudes place students with disabilities in the position of being normalized, or nondisabled, through the accommodations process (Davis, 2006; McRuer, 2006). These feelings of being "too disabled" or "not disabled enough" further identify the person with a disability as unwelcome, unworthy, or inferior (Linton, 2006; Dolmage, 2017). Beyond navigating the personal relationships with campus officials, students with disabilities also had to navigate internal conflicts regarding their own stigma about their disability.

When advocating for themselves, participants experienced positive feelings. They had feelings of empowerment and accomplishment when advocating and describing their needs as a student with a physical disability. Field et al. (1998) explain that the feelings of empowerment come from students feeling valued and respected. Mertens (2009) explains that that "the transformative paradigm focuses on … the strength found in communities when their rights are respected and honored" (p. 10). Thus, having needs met can be a catalyst for change. Likewise, Douglas (2018) explains that overcoming the risk of advocating results in feelings of independence and opens up possibilities. Furthermore, participants also felt that advocating for themselves benefitted other students with disabilities. For instance, if Rory had a meeting with an on-campus organization, they would advocate for an accessible facility. This would make the meeting accessible for other students with physical disabilities who wanted to participate. Similarly, when Jamie worked with a professor to have the door buttons repaired throughout campus, other members of the campus community benefitted.

Ultimately, students who use mobility aids seek respect on-campus. They do not want to have to advocate for respect. While participants often had many respectful interactions with peers and faculty, many of the disrespectful interactions stand out the most. Often, disrespect came through assumptions about participants' mobility and academic capabilities - ableist attitudes that create stigma. Sometimes the disrespect was blatant, like when a professor requested that Jamie sit on a lab stool instead of staying in their wheelchair for a lab activity. Or when Rory was going to receive a lower grade than their lab partner because Rory completed calculations and the lab report but did not pour the chemicals. Both examples parallel Olkin et al.'s (2019) explanations of different microaggressions, including denial of equitable access and denial of disability. This also supports Storey's (2019) observation that ableism includes messages that absence of disability is better than disability. These are also further examples of McRuer's (2006) crip theory because the circumstances suggest nondisabled practices are preferred. Other microaggressions were not as blatant, like when Jordan's professor discussed their paper with them and stood the entire time. This example is more in line with Nielson's (2012) explanation of accidental or unintentional ableism and Dolmage's (2018) description of ableism as not acknowledging the existence of a disability. Even though it may not seem like a major offense, it made Jordan feel like a child and demonstrated superiority of the professor because they were not disabled (Storey, 2007). Participants were also placed in a position to defend their competence when faced with the microaggression of assuming helplessness (Olkin et al., 2019; Trybus et al., 2019). Participants heard alternative terms to disability like differently abled or special needs. All of these examples place the students who use mobility aids, the students with disabilities, in the position of having to choose between advocating or not addressing the situation. This is not an easy choice, and the results can be time-consuming or send messages that people with disabilities are passive and satisfied with the way situations are managed.

While the intentions of accommodations and the accommodation process is to create equitable opportunities for students with disabilities, the process can be a barrier. It places additional responsibility on the student with the disability. Likewise, students with disabilities face stigma from themselves and others (Linton, 2006; Barragan & Nusbaum, 2017; Wood, 2017) in order to request and receive approved accommodations. They must regularly communicate their needs related to their disability because of existing barriers. Ultimately, self-advocacy has become a method for postsecondary students with disabilities to secure an equitable learning environment through multiple processes during their postsecondary education.

Disability dictates much of the educational process for students who use mobility aids. In addition to influencing decisions, it also results in barriers and stigma. The accommodations model within higher education is rooted in ableism. It automatically labels students who use mobility aids as different; therefore, they need to engage in different processes from their nondisabled peers. The accommodations process follows the medical model of disability implying that students with disabilities need help instead of providing an opportunity for students with disabilities to perform their best. This includes the self-advocacy process of disclosure and documentation to receive accommodations. The accommodations process is deep-rooted in ableism that suggests students with disabilities must advocate and receive accommodations to overcome their disability when in fact, disability is not something to overcome. While all students regardless of ability will need to advocate for themselves, students with physical disabilities find must practice self-advocacy or solve problems of physical access and stigma to have the same educational opportunities and respect as their nondisabled peers. Stigma and ableism are the barriers that students with disabilities must overcome; therefore, institutions must look at how to challenge stigma and create inclusive environments for students with disabilities.

Self-advocacy and the Transformative Paradigm

Researching the lived experiences of postsecondary students who use mobility aids with a focus on self-advocacy on campus presents many possibilities for change. The lived experiences of postsecondary students who use mobility aids are part of the larger system of higher education. These experiences indicate that change is still needed in the processes students must take for equitable access as well as the attitudes peers and campus employees have about postsecondary students who use mobility aids. Looking at the data through the lens of the transformative paradigm points to the need for change to support postsecondary students who use mobility aids. Data from the study highlights challenges each of the participants has encountered with processes and individuals on campus.

The processes on campus have been developed by individuals on campus with the power to develop those processes. Power structures play an important role in Mertens' (2009) discussion on transformative research. Data from this study describes some power structures and relationships like the campus accommodations process with disability services, professor to student interactions, and communication between students and facilities. Mertens (2009) also explains that highlighting strengths is an important consideration when looking at a social group. Participants in this study demonstrated problem-solving and persistence in their efforts to focus on their academics while managing the responsibilities related to their disability and navigating physical and personal barriers. Recognizing these strengths reinforces the importance of the presence and contributions of postsecondary students who use mobility aids.

Recommendations

The findings in this study point to recommendations at the institutional level, specifically postsecondary institutions as well as further research. Postsecondary students who use mobility aids is an underrepresented population within research. They have faced a variety of barriers on postsecondary campuses that also indicate change is necessary to create an inclusive environment that embraces the diverse perspective that postsecondary students who use mobility aids bring to campus.

Recommendations for Institutions

The barriers experienced by postsecondary students who use mobility aids point to changes that need to be made on campus. Much of the responsibility to create an equitable learning environment is placed on students with disabilities. This sends the message that the students with disabilities are the problem instead of access on campus being the problem. Furthermore, implying that students who use mobility devices are the problem further supports the archaic medical model of disability, which presents disability as something that is abnormal and needs to be repaired instead. It also supports McRuer's (2006) idea that nondisabled practices are preferred over disabled practices. While the focus of this study is on self-advocacy for postsecondary students who use mobility aids, the recommendations that follow will focus on what postsecondary institutions can do to create a more inclusive environment for students with physical disabilities. Many of the recommendations could be implemented for students with other disabilities, which is especially important since some of the students who participated in this study had other disabilities as well. These recommendations challenge the policies and practices established within the postsecondary system and stigma from individuals in positions of power in order to promote respect of postsecondary students who use mobility aids and create an inclusive, equitable learning environment while sending the message that students with disabilities belong on campus. While policies take time to develop and at times inform practices, some practices can be instituted without waiting for changes in policy.

Changing Policies

Campuses need to develop policies that inform a streamlined accommodations process among institutions, especially those within the same postsecondary system, to reduce confusion and offer students with disabilities a common process for receiving and requesting accommodations. Developing a system-wide policy would involve reviewing existing policies and processes within the postsecondary system. When making changes that affect a specific community, members of that community must be part of the process (Mertens, 2009); therefore, students with disabilities, including students who use mobility aids, need to be part of the discussion and development of new policies and processes as do faculty, staff, and administration. Including students with disabilities in conversations regarding processes about accommodations demonstrates respect for their contributions and diverse viewpoints. Furthermore, the process for requesting accommodations must be flexible instead of one-size-fits all – recognizing the complexity within the population. Students who use mobility aids have a variety of needs, even if they have similar disabilities. Ultimately, the accommodations process needs to respect the differences of students requesting accommodations, even if they have the same disabilities, and include student input beyond selecting accommodations from a predetermined checklist in this process.

Campuses need to identify a team of representatives to conduct regular accessibility audits, and a policy needs to outline the practices and standards for the accessibility audit. Participants would include students with disabilities, representatives from disability services, faculty, and members of the campus facilities team. An access audit would identify physical barriers throughout campus for students who use mobility aids including identifying buildings and classrooms for use of space to ensure students who use mobility aids have access to the entire room instead of merely the front or back. It may also include reallocating funding to ensure that all classroom desks and chairs offer the option for students who use mobility devices to sit at them instead of only identifying 1 - 2 tables in the classroom for students who use mobility aids. Funding may also have to be available for general repairs of ramps, sidewalks, and other accessibility features on order to maintain access. An access audit would also need to address ableism and stigma in order to develop plans to challenge these mindsets. This follows McRuer's (2006) idea that access extends beyond physical barriers and addresses social barriers within institutions that perpetuate ableist mindsets. An audit could also further discussions on where universal design could be implemented in the physical structure of campus.

Seeking opportunities for universal design provides more options for students with disabilities. More universal design does not replace disability services. Instead, universal design and disability services would work in concert with one another to inform new practices needed to support students with disabilities. When implementing universal design features, it is important to note that they do not stop with physical access, and other design features may need to be considered and added to classrooms, instruction, and interactions for students who use mobility aids. Considering funding is also important when looking at universal design; thus, developing policy around universal design is important for campuses. Dolmage (2017) suggests that many campuses sacrifice funding to disability services because of the institutions' efforts at universal design. While universal design may reduce the need for some services, it is not intended to replace the opportunities and resources provided by disability services.

Change in Practice

Students with disabilities need opportunities for their voices to be heard by other campus stakeholders: staff, faculty, disability services, administrators, and even the board, if one exists for the institution. Disability services needs to determine methods for receiving and reviewing feedback from students using their services in order to create improvements to student access. This feedback is an opportunity for change in processes and potentially a change in the structure and expectations of disability services. This also offers students with disabilities an important opportunity to have their voices heard to be a part of the change that needs to occur in order to serve better students with disabilities. Other opportunities could come in the form of campus forums, feedback forms, or even through campus organizations. Furthering these opportunities also helps develop allies who would also advocate for removal of barriers on campus.

Faculty also need more training in teaching students with disabilities, specifically related to offering accommodations in courses, communicating with students with disabilities, using disability-appropriate language, and remaining respectful and sensitive to the needs of students with disabilities. With more and more students with disabilities attending postsecondary institutions, faculty need to develop an understanding of the experiences of students with disabilities and the role of faculty in welcoming students with disabilities and respecting the diverse lens they bring to postsecondary classrooms and campuses. Faculty also need familiarity with ableism and stigmas that have been part of postsecondary systems. Most importantly, faculty need further strategies to problem-solve *with* students with disabilities and provide an equitable learning environment for them.

Implementing self-advocacy direct instruction in first-year seminars or symposiums for all students would benefit disabled and nondisabled students alike. All students on postsecondary campuses must use self-advocacy, whether they are working with financial aid or visiting a professor during office hours. Self-advocacy is not something just reserved for students with visible or invisible disabilities. Teaching students how to advocate helps all students while also reducing stigma around self-advocacy and accommodations for students with disabilities. Additional self-advocacy coaching could be offered for students with disabilities through disability services since students with disabilities will have to continue advocating relating to their disability after they earn their degree. In addition, students with disabilities are also faced with barriers on campus, and they may need additional support and details on how to advocate for those barriers to be removed.

Recommendations for Further Research

Postsecondary students with disabilities, especially postsecondary students who use mobility aids, are often left out of academic research. This study focused on the lived experiences of postsecondary students who use mobility aids and their experiences with self-advocacy in the postsecondary environment. The findings in this study present valuable details and information about the experiences for this group. More research is needed to further understand postsecondary students who use mobility aids in order to inform more effective practices to create inclusive and equitable postsecondary environments.

Continued research on self-advocacy for postsecondary students who use mobility aids can take a variety of forms of research methodologies. While this study used a qualitative phenomenological methodology, other qualitative research methodologies are also appropriate for studying this topic, including but not limited to case study, ethnography, and narrative. Qualitative research creates opportunities for postsecondary students who use mobility aids to share their stories – to have a voice (O'Day & Killeen, 2002; Shallish, 2017). When stories are shared, the members of the population can become more visible within their environments (Tevis & Griffen, 2014). Visibility through stories is important because according to Mertens (2009), providing descriptions of people's experiences can be a catalyst for change.

Individuals learn self-advocacy through multiple methods. A case study could investigate and describe how students who use mobility aids learn self-advocacy within a specific time and space and provide first-hand details about how students with disabilities learn self-advocacy and the effects of self-advocacy instruction for postsecondary students who use mobility aids. Quantitative methods could also be used with the case study to discuss how self-advocacy instruction affects the comfort-level students who use mobility aids have with self-advocacy. O’Day and Killeen (2002), support the use of qualitative and quantitative research together. They explain that using both qualitative and quantitative methods can fill in gaps and strengthen research.

Table 9
Recommendations for Further Research

Potential Methodologies	**Study parameters**	**Research Question**
Case study	Undergraduate participants who use mobility aids pursuing their degree	In what ways do students who use mobility aids learn self-advocacy in the postsecondary setting?
Case study	Participants within 5 years of diagnosis pursuing an undergraduate degree	How do postsecondary students who experience onset of a physical disability during their postsecondary program advocate for themselves?
Ethnographic study	Individual or group of undergraduate students who use mobility aids to observe and interview	How do postsecondary students who use mobility aids function and use self-advocacy in the postsecondary environment?
Ethnographic study	Participants who use mobility aids and have transitioned between in-person and online classes because of the pandemic	What are the distinct circumstances that demand self-advocacy when learning in-person and online, and what are the processes taken for each learning mode?
Meta-analysis	Determine criteria for institutional policies and procedures to review Determine method for reviewing policies and procedures	What are the policies and procedures for students with disabilities to request accommodations in postsecondary education?
Narrative study	Participant(s) who use mobility aids and are also persons of color, members of the LGBTQIA community or both	What are the effects of an intersection of disability with other student identities in the postsecondary environment?

This study originally intended to include participants whose onset of disability was within the past five years. Instead of focusing on recently disabled participants though, the study was opened to any current postsecondary students who used a mobility aid. The perspectives of participants who had been disabled most of their lives and the perspectives of participants who were recently diagnosed with a disability had some distinctions. Further research on self-advocacy for postsecondary students who acquired their disability during their undergraduate education would offer additional insights on how students develop self-advocacy skills and the knowledge needed to self-advocate. Once more, a case study focusing on self-advocacy when transitioning to a disability would be an effective method for exploring how do postsecondary students who experience onset of physical disability during postsecondary program advocate for themselves. A case study would offer a focus on the specific time frame during the transition from nondisabled to disabled and provide an in-depth understanding of the case (Creswell, 2013). Using onset as a focus also lends itself to quantitative research. Quantitative research could identify how the onset of disability affects the comfort-level postsecondary students who use mobility aids have with self-advocacy.

Postsecondary students who use mobility aids have their own preferences when advocating for themselves. Thus, self-advocacy is nuanced; however, it also has some common structures. In addition, postsecondary students who use mobility aids are a subculture within the postsecondary environment. Further understanding of how members of the subculture function and use self-advocacy on campus could be done through an ethnographic study. An ethnography would provide details about the subculture, including how they manage the postsecondary environment, how they communicate, and how they interact with other members of campus. Using ethnographic research of interviews and field observations also provides opportunities to see first-hand how the medical and social models of disability as well as ableism have an effect on self-advocacy for postsecondary students who use mobility aids.

Most participants in this study transferred from a two-year to a four-year postsecondary institution. Participants noted that the policies and procedures for requesting accommodations between institutions was different, even with the institutions were within the same system. What are the policies and procedures for students with disabilities to request accommodations in postsecondary education? A meta-analysis of institutional policies and procedures answering this question would fill a gap in the research. The analysis would need to identify specific criteria for the policies and procedures to be studied as well as criteria for the information being addressed. A meta-analysis would offer insights into some of the commonalities and distinctions among processes and policies or it could provide examples of ableist or stigmatizing policies and procedures.

Because this study took place during the pandemic, participants' postsecondary experiences changed from one learning mode to another – in-person and remote (online) learning. While one participant chose online learning for their program, other participants had to transition to online learning. As noted in the findings, this did affect their need to advocate for themselves as well as how they advocated for themselves. Thus, further studies that explore how the pandemic affected self-advocacy for postsecondary students who use mobility aids could ask a variety of questions: How do postsecondary students who use mobility aids advocate for themselves in an online environment? What are the distinct circumstances that demand self-advocacy when learning in-person and when learning online for postsecondary students who use mobility aids? What considerations do students who use mobility aids need to make when transitioning between modes of learning? What are the processes postsecondary students who use mobility aids take to advocate for themselves within in-person and online learning environments?

Finally, participants in this study identified by their disability, their gender, their race, and their sexual orientation. Research on intersectionality of disability and other ways people with disabilities identify is an emerging area within disability studies. Further research is needed to explore the ways in which disability intersects with other identities. Through narrative research, a participant or participants who use mobility aids could share their story of how their disability and other identities intersect, and what effect that intersection has had within the postsecondary environment. Research on intersectionality with disability must continue to grow so that people with disabilities are identified as their whole selves instead of only as their disabled selves.

Final Thoughts

This study shared the lived experiences of five participants who use mobility aids and their experiences with self-advocacy within the postsecondary environment. Findings from this study have identified potential topics for research and recommendations for campus improvements to reduce barriers on campus for students who use mobility aids. Self-advocacy and access go together on campuses, and findings from this study can also be applied to students with other disabilities.

While laws like the Americans with Disabilities Act and section 504 of the Rehabilitation Act protect students with disabilities, they are also subject to interpretation and leave much of the burden for an equitable learning environment on the students. Accommodations and self-advocacy take additional time for students with disabilities, and accommodations are not always what the student needs. Furthermore, when physical access is limited, accommodations do not necessarily offer a solution to the problem. The expectations for students who use mobility aids are to participate successfully in an academic environment and to navigate barriers through self-advocacy.

Some barriers to education, like interactions with ableist and stigmatizing viewpoints, are difficult to adjust with self-advocacy. These interactions take time to adjust, and once more the burden is often on the student to redirect through self-advocacy. This again takes time and energy, and students who use mobility aids must make decisions on when to continue speaking up in these cases and when to move on to other priorities. Self-advocacy is a choice that students who use mobility aids have to make on a daily basis for their own academic success, inclusion, and equitable learning opportunities.

In all, students who use mobility aids want to be respected members of campus. They want their voices to be heard and recognized and their experiences and perspectives valued throughout campus and the classroom. Continuing to research and listen to postsecondary students who use mobility aids creates the opportunities for change that will make stronger learning environments on campus.

EPILOGUE

As I began interviewing participants, the importance of this study became clearer to me. Participants were candid and gracious for the opportunity to share their stories, experiences, and emotions about living with a physical disability while pursuing their postsecondary education. Two interviews for participants allowed them to grow more comfortable sharing their experiences and speaking freely about their lives as students with disabilities. This structure also allowed me to become more comfortable asking follow-up questions and request additional details during interviews. Participants were able to speak freely and unguarded because they could maintain anonymity, and they were not receiving an evaluation on their experiences. Their voices are the heart of this study.

My lens as a researcher was reinforced through the study as well. I am a disabled person conducting educational research on postsecondary students with disabilities, more specifically with disabilities like mine. This is significant for multiple reasons. First, this study was conducted specifically for a degree in education. The study on students with physical disabilities is part of a mainstream department. While the study certainly has overlap with disability studies, the heart of this study is not on how the participants experienced disability; it is on how the participants experienced postsecondary education as disabled students. Secondly, I am a researcher who has been a member of the population I researched. While no two disabilities or disabled experiences are the same, we do share some similarities. These similarities helped me build connection with participants and reinforced that we are not alone in our experiences. More importantly, through my participants, I was reminded that despite barriers, supportive individuals and communities exist that value the voices and experiences of people with disabilities.

Admittedly, I sometimes felt disheartened and discouraged by some of the experience and stories participants shared. Not much has changed since my undergraduate experience. I did find heart, resolve, and empowerment in participants' stories though. My participants have a much greater understanding of their potential in the world than I saw in myself as an undergraduate student. They reinforced the power experiences have within the disabled community and the potential that exists for change.

REFERENCES

Aamlid, C. & Brownfield, K. (2019). We are not different; we just sit: A case study of the lived experiences of five college students in wheelchairs. *Journal of Ethnographic & Qualitative Research, 13*(3), 155–168.

Agarwal, N., Calvo, B.A., & Kumar, V. (2014). Paving the road to success: A students with disabilities organization in a university setting. *College Student Journal*, *48*(1), 34–44.

Akin, D., & Huang, L. M. (2019). Perceptions of college students with disabilities. *Journal of Postsecondary Education and Disability, 32*(1), 21–33.

Alshammari, S. (2017). A hybridized academic identify: Negotiating disability within academic discourse of ableism. Kerschbaum, S. L., Eisenman, L. T. & Jones, J. M. (Eds) (2017), *Negotiating Disability Disclosure and Higher Education*. (pp. 25–37). University of Michigan Press. https://doi.org/10.3998/mpub.9426902

Anastasiou, D., & Kaufman, J. M. (2013). The social model of disability: Dichotomy between impairment and disability. *Journal of Medicine and Philosophy, 38*(4), 441–459. https://doi.org/10.1093/jmp/jht026

Angell, M. E., Stoner, J. B., & Fulk, B. M. (2010). Advice from adults with physical disabilities on fostering self-determination during the school years. *Teaching Exceptional Children*, *42*(3), 64–75. https://doi.org/10.1177/004005991004200307

Aquino, K. C. & Bittinger, J. D. (2019). The self-(un)identification of disability in higher education. *Journal of Postsecondary Education and Disability*, *32*(1), 5–19.

Asbjørnslett, M., & Hemmingsson, H. (2008). Participation at school as experienced by teenagers with physical disabilities. *Scandinavian Journal of Occupational Therapy*, *15*(3), 153–161. DOI 10.1080/11038120802022045

Barber, P. (2012). Disability and work research report, college students with disabilities: What factors influence successful degree completion? A case study. A joint publication from the Jon H. Heldrich Center for Workforce Development and the Kaiser Foundation. Retrieved from: http://hdl.voced.edu.au/10707/302918

Barnard-Brak, L., Lechtenberger, D., & Lan, W. Y. (2010). Accommodation strategies of college students with disabilities. *The Qualitative Report*, *15*(2), 411–429. https://doi.org/10.46743/21603715/2010.1158

Barragan, E. & Nusbaum, E. A. (2017) Perceptions of disability on post-secondary campus: Implications for oppressions and human love. Kerschbaum, S. L., Eisenman, L. T. and Jones, J. M. (Eds.) (2017). *Negotiating Disability Disclosure and Higher Education*. (pp. 39–55). University of Michigan Press. https://doi.org/10.3998/mpub.9426902

Bauman, M., Davidson, D. L., Sachs, M. C., & Kotarski, T. (2013). Service, comfort, or emotional support? The evolution of disability law and campus housing. *The Journal of College and University Student Housing*, *40*(1), 142–157.

Black, D. R., Weinberg, L.A., & Brodwin, M. G., (2015). Universal Design for learning and instruction: Perspectives of students with disabilities in higher education. *Exceptionality Education International*, *25*(2), 1–6. DOI 10.5206/eei.v25i2.7723

Blinde, E.M. & McClung, L.R. (1997). Enhancing the physical and social self through recreational activity: Accounts of individuals with physical disabilities. *Adapted Physical Education Quarterly* *14*(4), 327–344. https://doi.org/10.1123/apaq.14.4.327

Bogart, K. R., & Dunn, D. S., (2019). Ableism special issue introduction. *Journal of Social Issues, 75*(3), 650–684. https://doi.org/10.1111/josi.12354

Bredahl, A. (2012). Not always being 'in team with' one's body: Dilemmas in being physically active while living with a disability. *Existential Analysis*, *23*(2), 305–319.

Brieland, D. (1967). A followup study of orthopedically handicapped high school graduates. *Exceptional Children*, *33*(8), 555–562. https://doi.org/10.1177/001440296703300806

Buchanan, I. (2006). Self-advocacy in historical perspective. *British Journal of Learning Disabilities, 34*(3), 133–138. https://10.1111/j.1468-3156.2006.00410.x

Burgstahler, S., & Moore, E. (2009). Making student services welcoming and accessible through accommodations and universal design. *Journal of Postsecondary Education and Disability, 21*(3), 155–174

Burwell, N. R., Wessel, R. D., & Mulvihill, T. (2015). Attendant Care for College Students with Physical Disabilities Using Wheelchairs: Transition Issues and Experiences. *Journal of Postsecondary Education & Disability*, *28*(3), 293–307.

Cahill, S.E., & Eggleston, R. (1995). Reconsidering the Stigma of Physical Disability: Wheelchair Use and Public Kindness. *The Sociological Quarterly*, *36*(4), 681–698.

Campbell, M.R. (2020). The substantial effect of microaggressions. *TD: Talent Development, 74*(11), 58–63.

Carpenter, C., & Readman, T. (2006). Exploring the literacy difficulties of physically disabled people. *Adult Basic Education, 16*(3), 131–150.

Carroll-Miranda, M. A. (2017). Access to higher education mediated by acts of self-disclosure. Kerschbaum, S. L., Eisenman, L. T. & Jones, J. M. (Eds.) (2017). *Negotiating Disability Disclosure and Higher Education*. (pp. 275–290). University of Michigan Press. https://doi.org/10.3998/mpub.9426902

Chapman, M., Bannister, S., Davies, J., Fleming, S., Graham, C., Mcmaster, A., Seddon, A., Wheldon, A., & Whittell, B. (2011). Speaking up about advocacy: Findings from a partnership research project. *British Journal of Learning Disabilities*, *40*, 71–80. https://doi.org/10.1111/j.1468-3156.2011.00688x

Cherney, J. L. (2019). *Ableist Rhetoric: How we Know, Value, and See Disability*. Pennsylvania State University Press: University Park, PA.

Connelly, L. M. (2010). What is phenomenology? *Medsurg Nursing 19*(2), 127–128.

Cory, R.C. (2011). Disability services offices for students with disabilities: A campus resource. *New Directions for Higher Education (154)* 27–36, DOI 10.1002/he.431

Creswell, J.W. (2013). *Qualitative Inquiry & Research Design: Choosing Among Five Approaches*. Thousand Oaks, CA: Sage Publishing.

D'Alessio, K. A., & Osterholt, D. A., (2018). Cultivating self-advocacy for "all" students on college campuses. *New England Journal of Higher Education*. *https://nebhe.org/journal/cultivating-self-advocacy-for-all-students-on-college-campuses/*

Daly-Cano, M., Vaccaro, A., & Newman, B. (2015). College student narratives about learning and using self-advocacy skills. *Journal of Postsecondary Education & Disability*, *28*(2), 213–227.

Davis. D.A., (2011). What I wish my teachers had known about students with physical disabilities. *Encounter: Education for Meaning and Social Justice 24*(4), 5–11.

Denney, S.C., & Daviso, A. W. (2012). Self-determination: A critical component of education. *American Secondary Education, 40*(2), 43–51.

Dirth, T. P., & Branscombe, N. R. (2017). Disability models affect disability policy support through awareness of structural discrimination. *Journal of Social Issues*, *73*(2), 413–442. https://10.1111/josi.12224a

Dolmage, J. T. (2017). *Academic Ableism: Disability and Higher Education*. University of Michigan Press.

Donalek. J. G. (2004). Phenomenology as a qualitative research method. *Urologic Nursing, 24*(6), 516–517.

Douglas, D. (2018). *The Power of Self-advocacy for Gifted Learners*. Free Spirit Publishing: Minneapolis, MN.

Dowrick P.W., Anderson, J., Heyer, K., & Acosta, J. (2005). Postsecondary education across the USA: Experiences of adults with disabilities. *Journal of Vocational Rehabilitation, (22)*. 41–47.

Eckes, S.E., & Ochoa, T.A. (2005). Students with disabilities transitioning from high school to higher education. *American Secondary Education, 33*(3), 6–20.

Emrey, D.B. (1999). *Living with a difference: A qualitative study on the educational climate of students with physical disabilities*. (Unpublished doctoral dissertation), University of Sarasota.

Erickson, W., Lee, C., von Schrader, S. (2019). Disability Statistics from the American Community Survey (ACS). Ithaca, NY: Cornell University Yang-Tan Institute (YTI). Retrieved June 30, 2020 from Cornell University Disability Statistics website: www.disabilitystatistics.org

Fichten, C. S., Nguen, M. N., Budd, J., Asucncion, J., Tibbs, A., Jorgensen, M., Barile, M., & Amsel, R. (2014). College and university students with disabilities: "Modifiable" personal and school related factors pertinent to grades and graduation. *Journal of Postsecondary Education and Disability 27*(3), 273–290.

Fiedler, C.R., & Danneker, J.E. (2007). Self-advocacy instruction: Bridging the research-to-practice gap. *Focus on Exceptional Children*, *39*(8), 1–20. DOI 10.17161/fec.v39i8.6875

Field, S., Martin, J., Miller, R., Ward, M., & Wehmeyer, M. (1998). *A Practical Guide for Teaching Self-Determination*. Council for Exceptional Children, CEC Publications, Reston, VA. Retrieved from https://files.eric.ed.gov/fulltext/ED442207.pdf

Finnis, E., Howell, J., & Gorrie, R. (2014). Some reflections on improving accessibility and the classroom experience. *Transformative Dialogues: Teaching & Learning Journal*, *7*(3), 1–13.

Fix, C., & Rohrbacher, J. A. (1977). What is a handicap?: The impact of attitudes. *Personnel & Guidance Journal*, *56*(3), 176–178.

Fowler, C. H., Getzel, E. E. & Lombardi, A. (2018). Facilitating college supports to ensure student success. *New Directions for Adult and Continuing Education*, *160*, 101–112.

Gabel, S.L. (2010). A disability studies framework for policy activism in postsecondary education. *Journal of Postsecondary Education and Disability*, *23*(1), 63–70.

Garland, J.L. (2015). Commuter students with disabilities. *New Directions for Student Services, 150*, 57– 67. DOI 10.1002/ss.20127

Garner, P., & Sandow, S. Eds. (1995). *Advocacy, Self-advocacy and Special Needs.* David Fulton Publishers, Great Britain.

Garrison-Wade, D. F. (2012). Listening to their voices: Factors that inhibit or enhance postsecondary outcomes for students with disabilities. *International Journal of Special Education, 27*(2), 113–125.

Gelbar, N. W., Madaus, J. W., Lombardi, A., Faggella-Luby, M., & Dukes, L. (2015). College students with physical disabilities: Common on campus, uncommon in the literature. *Physical Disabilities: Education and Related Services, 34*(2), 14–31. DOI 10.14434/pders.v34i2.19224.

Getzel, E. E. (2014). Fostering Self-Determination in Higher Education: Identifying Evidence-Based Practices. *Journal of Postsecondary Education & Disability*, *27*(4), 381–-386.

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. https://doi.org/10.1177/0885728808317658

Giorgi, A. (1997). The theory, practice, and evaluation of the phenomenological method as a qualitative research. *Journal of Phenomenological Psychology*, 28(2), 235. https://doi.org.pacificatclassic.pacific.edu/10.1163/15681628uX00103

Gragoudas, S. (2014). Preparing students with disabilities to transition from school to work through self-determination training. *Work*, *48*(3), 407–-411 5p. DOI 10.3233/WOR-131782

Griffen, J. & Tevis, T. (2017). Tools for moving the institutional iceberg: Policies and practices for students with disabilities. in E. Kim & K.C. Aquino (Eds.). *Disability as Diversity in Higher Education: Policies and Practices to Enhance Student Success*. (1st ed., pp. 153–167). Routledge.

Groenwald, T. (2004). A phenomenological research design illustrated. *International Journal of Qualitative Methods 3*(1). https://doi.org/10.1177/160940690400300104

Gronvik, L. (2009). Defining disability: Effects of disability concepts on research outcomes. *International Journal of Social Research Methodology (12)*1, 1–18. https://doi.org/10.1080/13645570701621977

Gross, B. H. & Hahn, H. (2004). Developing issues in the classification of mental and physical disabilities. *Journal of Disability Policy Studies, 15*(3), 130–134. https://doi.org/10.1177/10442073040150030101

Hadjikakou, K., Polycarpou, V., & Hadjilia, A. (2010). The Experiences of Students with Mobility Disabilities in Cypriot Higher Education Institutions: Listening to their voices. *International Journal of Disability, Development & Education, 57*(4), 403–426. DOI 10.1080/1034912X.2010.524445

Hadley, W. M. (2011). College students with disabilities: A student development perspective. *New Directions for Higher Education, 154*, p. 77–81.

Harbour, W. S., Boone, R., Bourne Heath, E., & Ledbetter, S. G. (2017). “Overcoming” in disability studies and African American culture: Implications for higher education. Kerschbaum, S. L., Eisenman, L. T., & Jones, J. M. (Eds.) (2017). *Negotiating Disability Disclosure and Higher Education*. (pp. 149–170). University of Michigan Press. https://doi.org/103998/mpub.9426902

Harris, S. P., Owen, R., & De Ruiter, C. (2012). Civic engagement and people with disabilities: The role of advocacy and Technology. *Journal of Community Engagement & Scholarship*, *5*(1), 70–83.

Hebert, J. T., et al. (2014). Persistence and graduation of college students seeking disability support services. *Journal of Rehabilitation, 80*(1), 22–32.

Hedrick, B. N., Stumbo, N. J., Martin, J. K., Martin, L. G., Nordstrom, D. L., & Morrill, J. H. (2012). Personal assistant support for students with severe physical disabilities in postsecondary education. *Journal of Postsecondary Education & Disability*, *25*(2), 161–177.

Hehir, T. (2007). Confronting ableism. *Educational Leadership, 64*(5), 8–14.

Hill, J.L. (1992). Accessibility: Students with disabilities in universities in Canada. *The Canadian Journal of Higher Education*, *22*(1). 48–83. https://doi.org/10.47678/cjhe.v22il183122

Hunt, C. S., & Hunt, B. (2004). Changing Attitudes Toward People with Disabilities: Experimenting with an Educational Intervention. *Journal of Managerial Issues*, *16*(2), 266–280. Retrieved from https://www.jstor.org/stable/40604458

Izzo, M. V., & Lamb, P., (2003). Developing self-determination through career development activities: Implications for vocational rehabilitation counselors. *Journal of Vocational Rehabilitation, 19*(2), 71–78.

Jameson, D. R. (2007). Self-determination and success outcomes of two-year college students with disabilities. *Journal of College Reading & Learning (College Reading & Learning Association)*, *37*(2), 26-46. https://doi.org/10.1080/10790195.2007.10850196

Karvonen, M., Test, D. W., Wood, W. M., Browder, D., Algozzine, B. (2004). Putting self-determination into practice. *Exceptional Children*, *71*(1), 23–41. DOI 10.1177/001440290407100102

Kelepouris, C. (2014). Transitioning students with disabilities into higher education. *Brigham Young University Education and Law Journal*, *2014*(1), 27–39.

Kennette, L. N., & Wilson, N. A. (2019). Universal Design for Learning (UDL): Student and faculty perceptions. *Journal of Effective Teaching in Higher Education*, *2*(1), 1–26.

Koopman, O. (2017). *Science Education and Curriculum in South Africa*. Cham, Switzerland: Springer International.

Kraglund-Gauthier, W. L., Young, D. C., & Kell, E. (2014). Teaching students with Disabilities in post-secondary landscapes: Navigating elements of inclusion, differentiation, universal design for learning, and technology. (2014). *Transformative Dialogues: Teaching & Learning Journal*, *7*(3), 1–9.

Kroeger, S. & Kraus, A. (2017). Thinking and practicing differently: Changing the narrative around disability on college campuses. In E. Kim & K. C. Aquino (Eds.) *Disability as Diversity in Higher Education* (pp. 216–229). Routledge.

Lamb, P. (2014). Fostering the self-determination and self-advocacy skills of college students with disabilities through a college success class. *Review of Disability Studies: An International Journal*, *1*(2).

Laverty, S. M. (2003). Hermeneutic phenomenology and phenomenology: A comparison of historical and methodological considerations. *International Journal of Qualitative Methods, 2*(3). 1–31, Article 3. Retrieved January 25, 2021 from https://www.ualberta.ca/~iiqm/backissues/2_3final/pdf/laverty.pdf

Leake, D. W., & Stodden, R. A. (2014). Higher education and disability: Past and future of underrepresented populations. *Journal of Postsecondary Education & Disability*, *27*(4), 399–408.

Liasidou, A. (2014). Critical disability studies and socially just change in higher education. *British Journal of Special Education*, *41*(2), 120–135. https://doi.org/10.1111/1467-8578.12063

Lindstrom, L., Downey-McCarthy, R., Kerewsky, S. D., & Flannery, K. B. (2009). Supporting students with disabilities in postsecondary education. *Human Service Education*, *29*(1), 4–13.

Linton, S. (2006). Reassigning Meaning. In L. J. Davis (Ed.), *The Disability Studies Reader*. (160–172). New York, NY: Taylor & Francis Group

Lock, R. H., & Layton, C. A. (2001). Succeeding in postsecondary ed through self-advocacy. *Teaching Exceptional Children*, *34*(2), 66-71. https://doi.org/10.1177/004005990103400210

Loewen, G., & Pollard, W. (2010). The social justice perspective. *Journal of Postsecondary Education and Disability*, *23*(1), 5–18.

Low, J. (1996). Negotiating identities, negotiating environments: an interpretation of the experiences of students with disabilities. *Disability & Society 11*(2), 235–248. https://doi.org/10.1080/09687599650023254

Lundberg, N., Taniguchi, S., McCormick, B.P., Tibbs, C. (2011). Identity negotiating: Redefining stigmatized identities through adaptive sports and recreation participation among individuals with a disability. *Journal of Leisure Research, 43*(2). 205–225. https://doi.org/10.1080/00222216.2011.11950233

Lyman, M., Beecher, M.E., Griner, D., Brooks, M., Call, J., & Jackson, A. (2016). What keeps students with disabilities from using accommodations in postsecondary education? A qualitative review. *Journal of Postsecondary Education & Disability, 29*(2), 123–140.

Lynch, R. T., & Gussel, L. (1996). Disclosure and self-advocacy regarding disability-related needs: Strategies to maximize integration in postsecondary education. *Journal of Counseling & Development*, *74*(4), 352–357. https://doi.org/10.1002/j.1556-6676.1996.tb01879.x

Madaus, J. W. (2011). The history of disability services in higher education. *New Directions for Higher Education* 154, 5–15. https://doi.org/10.1002/he.429

Madaus, J. W., & Shaw, S. F. (2006). Disability services in postsecondary education: Impact of IDEA 2004. *Journal of Developmental Education, 30*(1), 12–21.

Mamiseishvili, K., & Koch, L.C. (2012). Students with disabilities at 2-year institutions in the United States: Factors related to success. *Community College Review 40*(4), 320–339. https://doi.org/10.1177/0091552112456281

Mapp, T. (2008). Understanding phenomenology: The lived experience. *British Journal of Midwifery, 16*(5), 308–311. https://doi.org/10.12968/BJOM.2008.16.5.29192

Maxwell, J. A. (2013). *Qualitative Research Design.* Thousand Oaks, CA: Sage.

McCune, P. (2001). What do disabilities have to do with diversity? *About Campus, 6*(2), 5–12. https://doi.org/10.1177/108648220100600203

McFadden, E. S., Daugherty, D. B., Lee, S. E., Fisher, K., Hack, A., Arizona State University, M. E. for P. P., & Arizona Developmental Disabilities Planning Council (ADDPC). (2015). The graduation cliff: Improving the post-school outcomes of students with disabilities. In *Morrison Institute for Public Policy*. Morrison Institute for Public Policy.

McRuer, R. (2006). *Crip Theory: Cultural Signs of Queerness and Disability*. New York: New York University Press.

McRuer, R. (2013). Compulsory able-bodiedness and queer/disabled existence. In L. J. Davis (Ed.), *The Disability Studies Reader* (4th ed., pp. 369–378). Routledge.

Mertens, D. (2007). Transformative paradigm: Mixed methods and social justice. *Journal of Mixed Methods Research*. 1, 212–225. DOI 10.1177.1558689807302811

Mertens D. (2009). *Transformative Research and Evaluation*. New York: Guilford Press.

Milsom, C., Anwar, N., & Thompson. (2006). Developing an inclusive curriculum for students with mobility impairments. Hills, M., & Healey, M. (Eds.). Gloucestershire: Geography Discipline Network.

Miller, S., Zayac, R., Paulk, A., & Lee, S. (2019). Disability accommodation requests: Prevalence and preference of review processes at postsecondary institutions in the United States. *Journal of Postsecondary Education & Disability, 32*(3), 217–226.

Mole, H. (2013). A US model for inclusion of disabled students in higher education settings: the social model of disability and Universal Design. *Widening Participation and Lifelong Learning, 14*(3), 62–86. https://doi.org/10.5456/WPLL.14.3.62

Moran, D. & Mooney, T. (Eds.). (2002). *The Phenomenology Reader*. Routledge.

Morningstar, M. E. & Shoemaker, A. (2018). Options and skills necessary for navigating a successful transition to postsecondary education. *New Directions for Adult & Continuing Education, 2018*(160), 39–51. https://doi.org/10.1002/ace.20298

Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA: Sage.

Myers, K. A., Lindburg, J. J., & Nied, D. M. (2013). *Allies for inclusion: Disability and equity in higher education*. San Francisco: Wiley.

Myers, M., MacDonald, J. E., Jacquard, S., & McNeil, M. (2014). (dis)Ability and postsecondary education: One woman's experience. *Journal of Postsecondary Education & Disability, 27*(1), 73–87.

Nario-Redmond, M. R., & Kemerling, A. A. (2019). Hostile, benevolent, and ambivalent ableism: Contemporary manifestations. *Journal of Societal Issues, 75*(3), 726–759. https://psycnet.apa.org/doi/10.1111/josi.12337

Nielsen, K. E. (2012). *A Disability History of the United States*. Beacon Press: Boston, MA.

O'Connor, D.L., Young, J.M., & Saul, M.J. (2004). Living with paraplegia: Tensions and contradictions. *Health and Social Work (29)*3, 207–218. https://doi.org/10.1093/hsw/29.3.207

O'Day, B. & Killeen, M. (2002). Research on the lives of people with disabilities: The emerging importance of qualitative research methods. *Journal of Disability Policy Studies 13*(1), 9–15. https://doi.org/10.1177%F104420730201300102 01

Olkin, R. (2002). Could you hold the door for me? Including disability in diversity. *Cultural Diversity And Ethnic Minority Psychology*, *8*(2), 130–137. DOI 10.1037/1099-9809.8.2.130

Olney, M. F., & Brockelman, K. F. (2005). The Impact of Visibility of Disability and Gender on the Self-Concept of University Students with Disabilities. *Journal of Postsecondary Education and Disability*, *18*(1), 80–91.

Palmer, C., & Roessler, R. T. (2000). Requesting classroom accommodations: Self-advocacy and conflict resolution training for college students with disabilities. *Journal Of Rehabilitation*, *66*(3), 38–43.

Patton, M.Q. (2015). *Qualitative Research & Evaluation Methods*. Thousand Oaks: CA. Sage Publishing.

Pawlukewicz, J. (2011). Cultural disability readiness: The upcoming landscape. Are we ready? *The International Journal of Diversity in Organisations, Communities, and Nations (10)*6, 119–128. https://doi.org/10.18848/1447-9532/CGP/v10i06/38938

Pearson, H., & Samura, M. (2017). Using a spatial lens to examine disability as diversity on college campuses. In E. Kim and K. S. Aquino (Eds). *Disability as Diversity in Higher Education* (pp. 88–103). Routledge.

Pillette, K. (2019). College Students with Disabilities and Employment: Career Development Needs and Models of Support. NCCSD Research Brief, 2(3). Huntersville, NC: National Center for College Students with Disabilities, Association on Higher Education And Disability. Retrieved January 20, 2020 from https://www.NCCSDclearinghouse.org

Poehls, R. A. (2009). Self-advocacy: What is it and how is it best taught?. *Health Education Monograph Series*, *26*(1), 34–37.

Radwin, D., Conzelmann, J.G., Nunnery, A., Lacy, T.A., Wu, J., Lew, S., Wine, J., & Siegel, P. (2018). 2015–16 National Postsecondary Student Aid Study (NPSAS:16): Student Financial Aid Estimates for 2015–16 (NCES 2018-466). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved July 2, 2018 from https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2018466

Raue, K., & Lewis, L. (2011). *Students with Disabilities at Degree-Granting Postsecondary Institutions* (NCES 2011–018). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Reinschmiedt, H. J., Buono, F. D., Sprong, M. E., Upton, T. D. & Dallas, B. (2013). Post-secondary students with disabilities receiving accommodations: A survey of satisfaction and subjective well-being. *Journal of Rehabilitation, 79*(3), 3–10.

Rice, C., Zitzelsberger, L., Porch, W., & Ignagni, E. (2004). Creating Community Across Disability and Difference. *Canadian Woman Studies, 24*(1), 187–192.

Rocco, T. S., & Collins, J. C., (2017). An initial model for accommodation communication between students with disabilities and faculty. Kerschbaum, S. L., Eisenman, L. T., & Jones, J. M. (Eds.) (2017). *Negotiating Disability Disclosure and Higher Education*. (pp. 327–344). University of Michigan Press. University of Michigan Press. https://doi.org/10.3998/mpub.9426902

Rothman, T., Maldonado, J. M., & Rothman, H. (2008). Building self-confidence and future career success through a pre-college transition program for individuals with disabilities. *Journal of Vocational Rehabilitation, 28*, 73–85.

Sadala, M. L. A. & Adorno, R. de C. F. (2002). Phenomenology as a method to investigate the experience lived: A perspective from Husserl and Merleau Ponty’s thought. *Journal of Advanced Nursing (Wiley-Blackwell), 37*(3), 282–293. https://doi.org/10.1046j.1365-2648.2002.02071.x

Samuels, E. (2017). Passing, coming out, and other magical act. Kerschbaum, S. L., Eisenman, L. T., & Jones, J. M. (Eds.) (2017). *Negotiating Disability Disclosure and Higher Education.* (pp. 15–23). University of Michigan Press. University of Michigan Press. https://doi.org/10.3998.mpub.9426902

Scorgie, K., Kildal, L., & Wilgosh, L. (2010). Post-secondary students with disabilities: Issues related to empowerment and self-determination. *Developmental Disabilities Bulletin, 38* (1–2), 133–145.

Scott, S. (2019). Access and participation in higher education: Perspectives of college students with disabilities. *NCCSD Research Brief, 2*(2). Huntersville, NC: National Center for College Students with Disabilities, Association on Higher Education and Disability. Retrieved January 20, 2020 from https://www.NCCSDclearinghouse.org

Seelman, K. D. (2017). Students with disabilities in higher education: Welfare, stigma management and disclosure. Kerschbaum, S. L., Eisenman, L. T. & Jones J. M. (Eds.) (2017). *Negotiating Disability Disclosure and Higher Education* (pp. 135–147). University of Michigan Press. University of Michigan Press. https://doi.org/10.3998/mpub.9426902

Shallish, L. (2017). A different diversity: Challenging the exclusion of disability studies from higher education research and practice. In E. Kim & K.C. Aquino (Eds.). *Disability as Diversity in Higher Education* (1st ed., pp. 19–30). Routledge.

Singh, D. K. (2019). Educational rights of college students with disabilities. *College Student Journal, 53*(2), 243–251.

Sniatecki, J. L., Perry, H. B., & Snell, L. H. (2015). Faculty attitudes and knowledge regarding college students with disabilities. *Journal of Postsecondary Education & Disability, 28*(3), 259–275.

Snyder, T.D., & Dillow, S.A. (2012). Digest of Education Statistics 2011 (NCES 2012-001). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Strange, C. (2000). Creating environments of ability. *New Directions for Student Services, 91*, 19–30.

Storey, K. (2007). Combating ableism in schools. *Preventing School Failure 52*(1), 56–58. DOI 10.3200/PSFL.52.1.56-58

Sweeney, T. (1995). Curriculum matters: Using drama to extend the involvement of children with special education needs. Garner, P. & Sandow, S. (Eds.) *Advocacy, Self-advocacy, and Special Needs.* David Fulton Publishers, Great Britain.

Tarzian, A. J. (2007). Disability and Slippery Slopes. *Hastings Center Report*. *37*(5), p. 49. https://doi.org/10.1353/hcr.2007.0080

Terzi, L. (2004). The social model of disability: A philosophical critique. *Journal of Applied Philosophy 21*(2), 141–157. https://doi.org/10.1111/j.0264-3758.2004.00269.x

Test, D.W., Fowler, C.H., Brewer, D.M., Wood, W.M., & Eddy, S. (2005a). A conceptual framework of self-advocacy for students with disabilities. *Remedial and Special Education, (26)*1, 43–54. https://doi.org/10.1177%F07419325050260010601

Test, D. W., Fowler, C. H., Brewer, D. M., & Wood, W. M. (2005b). A Content and Methodological Review of Self Advocacy Intervention Studies. *Exceptional Children*, *72*(1), 101–125. https://doi.org/10.1177%2F001440290507200106

Tevis, T., & Griffen, J. (2014). Absent voices: Intersectionality and college students with physical disabilities. *Journal of Progressive Policy and Practice 2*(3). 239–254.

Titchkosky, T. (2008). “To pee or not to pee? Ordinary talk. *Canadian Journal of Sociology/Cahiers canadiens de sociologie*, *33*(1), 37. https://dx.doi.org/10.29173/cjs1526

Trammell, J. (2009). Postsecondary students and disability stigma: Development of the postsecondary student survey of disability-related stigma (PSSDS). *Journal of Postsecondary Education & Disability*, *22*(2), 106–116.

Trybus, M. J., Breneman, D. A., & Gravett, E. O. (2019). Ableism, accessibility, and educational development: A disability studies perspective. *New Directions for Teaching & Learning*, *2019*(158), 59–68. https://doi.org/10.1002/tl.20339

Vaccaro, A. & Kimball, E. (2017). "It's a very deep, layered topic:" Student affairs professionals on the marginality and intersection of disability. In E. Kim & K.C. Aquino (Eds.) *Disability as diversity in higher education* (pp. 138–152). Routledge.

Vagle, M. D. (2016). *Crafting phenomenological research*. New York: Taylor and Francis.

van Manen, M. (2016). *Phenomenology of practice: Meaning-giving methods in phenomenological research and writing*. Routledge: New York, NY.

Walker, A. W., & Test, D. W. (2011). Using a self-advocacy intervention on African American college students' ability to request academic accommodations. *Learning Disabilities Research & Practice, 26*(2), 134–144. https://psycnet.apa.org/doi/101111/j.1540-5826.2011.00333.x

Wehman, P., Wilson, K., Targett, P., West, M., Bricout, J., & McKinley, W. (1999). Removing transportation barriers for persons with spinal cord injuries: An ongoing challenge to community reintegration. *Journal of Vocational Rehabilitation (13)*, 21–30.

Wehmeyer, M. L., & Shalock, R. L. (2001). Self-determination and quality of life: Implications for special education services and supports, *Focus on Exceptional Children, 33*(8). 1–16.

Wessel, R. D., Jones, D., Blanch, C. L., & Markle, L. (2015). Pre-enrollment considerations of undergraduate wheelchair users and their post-enrollment transitions. *Journal of Postsecondary Education & Disability*, *28*(1), 57–71.

White, G. W., Summers, J. A., Zhang, E., & Renault, V. (2014). Evaluating the effects of a self-advocacy training program for undergraduates with disabilities. *Journal of Postsecondary Education & Disability*, *27*(3), 229–244.

Wilgosh, L., Sobsey, D., Cey, R., & Scorgie, K. (2008). Life management of post-secondary students with disabilities. *Developmental Disabilities Bulletin, 36(1)*, 199–224.

Yilmaz, K. (2013). Comparison of quantitative and qualitative research traditions: Epistemological, theoretical, and methodological differences. *European Journal of Education, 48*(2), 311–325. https://doi.org/10.1111/ejed.12014

Yssel, N., Pak, N., & Beilke, J. (2016). A door must be opened: Perceptions of students with disabilities in higher education. *International Journal of Disability, Development and Education, 63*(3). 384–394. DOI 10.1080/1034912X.2015.1123232

Yuknis, C. & Berstein, E. R. (2017). Supporting students with non-disclosed disabilities. In E. Kim and K. C. Aquino (Eds.) *Disability as Diversity in Higher Education* (pp. 3–18). Routledge.

Zabriskie, R.B., Lundberg, N.R., & Groff, D. G. (2005). Quality of life and identity: The benefits of community-based therapeutic recreation and adaptive sports program. *Therapeutic Recreation Journal, 3*(39), 176–191.

APPENDIX A: INFORMED CONSENT FORM

UNIVERSITY OF THE PACIFIC

Research Title: Self-Advocacy for Postsecondary Students who Use Mobility Aids

Lead Researcher: Erin Moore

Faculty Advisor (if any): Dr. Charlane Starks and Dr. Heidi Stevenson

RESEARCH DESCRIPTION: Your consent is being requested to voluntarily participate in a research study on self-advocacy for postsecondary students who use mobility aids. The purpose of the research is to explain the lived experiences of postsecondary students who use mobility aids and how they advocate for themselves in a postsecondary environment. You will be asked to participate in a one to one-and-a-half hour interview conducted via phone or video conferencing tool. A second interview may be scheduled based on findings from the first interview or if more time is needed during the first interview. In order to ensure accuracy, the interview will be recorded. Audio recordings will be destroyed, and transcripts will remain in a password-secured file for up to three years. Results of this study may be presented at scientific meetings and published. There are no alternative research procedures, so your alternative is not to participate.

TIME INVOLVEMENT: Your participation will take approximately one to one-and-a-half hours.

RISKS AND BENEFITS: The risks associated with this study are that your personal information may be accessed by an individual not associated with the study in the case of a computer or audio file breach. While identifying information will be omitted from the study, you are identifying as a postsecondary student who uses a mobility aid, so anonymity is not guaranteed. In addition, the interview may present questions that trigger emotions and memories that are difficult to share. The benefits which may reasonably be expected to result from this study are that your experiences will lend themselves to a body of research of an under-represented community – students who use mobility aids. Your participation is an opportunity for your voice to be heard through your experiences. Information you share will help offer others perspectives they had not considered when teaching and learning with students with mobility impairments.

COMPENSATION: You will not receive compensation for your participation.

PARTICIPANT'S RIGHTS: If you have read this form and have decided to participate in this research project, you understand that your participation is entirely voluntary and your decision whether or not to participate will involve no penalty or loss of benefits to which you are otherwise entitled. If you decide to participate, you are free to discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled. You have the right to refuse to answer particular questions. It is possible that we may decide that your participation in this research is not appropriate. If that happens, you will be dismissed from the study. In any event, we appreciate your willingness to participate in this research.

CONFIDENTIALITY: Audio files of the interview will be destroyed after transcripts have been created. Transcripts will be kept in an electronic password-protected file for three years after the study.

COLLECTION OF INFORMATION OR BIOSPECIMENS Participants will be identified as postsecondary students who use mobility aids. Each participant will be given a pseudonym, and details about the participant's institution and degree of study will not be included in the study in order to protect anonymity.

CONTACT INFORMATION:

Questions: If you have any questions, concerns or complaints about this research, its procedures, risks and benefits, contact the Lead Researcher, Erin Moore at 651-303-7674 or by email at e_moore4@u.pacific.edu or the Faculty Research Advisor, Dr. Charlane Starks at 209-946-2335 or by email at cstarks@pacific.edu.

Independent Contact: If you are not satisfied with how this study is being conducted, or if you have any concerns, complaints, or general questions about the research or your rights as a participant, please contact Office of Research and Sponsored Programs to speak to someone independent of the research team at (209)-946-3903 or *IRB@pacific.edu*.

I hereby consent: (Indicate ***Yes*** or ***No***

- To be audio recorded during this study.
  ___Yes ___No
- For such audio records resulting from this study to be used for my doctoral study
  ___Yes ___No

The extra copy of this signed and dated consent form is for you to keep.

Your signature below indicates that you have read and understand the information provided above, that you have been afforded the opportunity to ask, and have answered, any questions that you may have, that your participation is completely voluntary, that you understand that you may withdraw your consent and discontinue participation at any

time without penalty or loss of benefits to which you are otherwise entitled, that you will receive a copy of this form, and that you are not waiving any legal claims, rights or remedies.

SIGNATURE ___________________________________ DATE ________________________

Research Study Participant (Print Name): ______________________________________

Participant's Representative (Print Name): _____________________________________

Description of Representative's Authority: _____________________________________

Researcher Who Obtained Consent (Print Name): ________________________________

APPENDIX B: PARTICIPANT INVITATION

Hello,

I am writing you today to request your participation in my dissertation research toward fulfilling my Doctor of Education degree with University of the Pacific in Stockton, CA. The purpose of my dissertation is to explain the lived experiences of postsecondary students who use mobility aids and how they advocate for themselves in a postsecondary environment.

Participants in the study will participate in a 1 – 1.5 hour interview. Because of the current pandemic, interviews will be conducted via a video conferencing platform or phone call. After the initial interview, I may request a second interview based on my initial data review. Interviews will be recorded and stored in a secure environment until transcribed. Once interviews are transcribed, the recordings will be destroyed. I will keep the transcription in a password protected file for up to three years after the interview. If you agree to participate, we will both sign an informed consent form to meet University of the Pacific human subject requirements.

Your participation in this study is completely voluntary. Let me know if you need to take a break at any time. You may also withdraw from participating in this study at any time without consequence. This is a phenomenological study which collects lived experiences. In order to ensure accuracy of your experiences, I commit to bracketing myself out of the data analysis. Bracketing in phenomenology ensures that my biases and experiences will not influence your answers or my analysis of the data. I will present the findings of the study with openly with the intention of capturing the essence of your experience.

I appreciate your time in reviewing information on my study on self-advocacy for postsecondary students who use mobility aids. Please let me know if you agree to participate, and whether you would prefer a phone interview or a video conference interview. Once I hear from you, I will schedule an interview time.

If at any time you wish to speak to my dissertation chair, please feel free to contact her:
Dr. Charlane Starks – cstarks@pacific.edu.
Thank you,

Erin Moore
651-303-7674
E_moore4@u.pacific.edu

APPENDIX C: INTERVIEW SCRIPT

My name is Erin Moore, and I'm a doctoral student at University of the Pacific conducting my research in fulfillment of a Doctor of Education degree. Thank you for meeting with me today. In order to support the accuracy of my note-taking, I will audio-record our conversation today. The recording will be stored securely and be destroyed after I transcribe the interview. I will keep transcriptions in an electronic file that is password protected for up to three years after my study is complete. Before we begin, we need to review and sign the informed consent form which is required to meet the University's human subjects requirements. The consent form states that:

Your participation is entirely voluntary and your decision whether or not to participate will involve no penalty or loss of benefits to which you are otherwise entitled. If you decide to participate, you are free to discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled. You have the right to refuse to answer particular questions. It is possible that we may decide that your participation in this research is not appropriate. If that happens, you will be dismissed from the study. In any event, we appreciate your willingness to participate in this research.

Through bracketing – setting aside my own biases and presuppositions – I commit to honoring your experiences honestly in my data analysis and presentation of the study's findings.

I have planned this interview to last one to one-and-a-half hours, and I will do my best to keep the interview within that timeframe. I will ask you questions that ask about your experiences as a postsecondary student who uses mobility aids.

Do you have any questions before we begin? Then with your permission, we will begin the interview.

APPENDIX D: INTERVIEW QUESTIONS

Interview Protocol

As the primary instrument for data collection, I will record and transcribe the interviews with participants. The questions have been constructed based on Moustakas' (1994) recommendation that questions are broad and open-ended. Some interview questions may not be asked depending on participant responses. Additional follow-up questions will be asked throughout the interview in order to clarify misconceptions and collect additional details. The details participants provide will drive the follow-up questions.

Each participant will be interviewed twice. The first interview will be used to build rapport with the participant and discover background knowledge about the participant. The second interview will focus on the participants' experience with self-advocacy as a postsecondary student with a mobility impairment. Information that jeopardizes the anonymity of participants will not be used in the study.

Research questions:

1. What are the lived experiences of postsecondary students with mobility impairments during their postsecondary education?
2. What are the experiences postsecondary students with mobility impairments have with self-advocacy within the postsecondary setting?
3. In what ways do postsecondary students with mobility impairments interpret their experience with self-advocacy in their postsecondary education?

Interview 1

- Describe your educational journey.
- What are your goals after you complete your degree?
- Tell me about your mobility impairment.
- Tell me more about your experiences as a student with a mobility impairment:
    - In what ways has your disability affected your educational journey?
    - Describe your experiences with students, faculty, and staff on campus.
    - Tell me about how you balance your time between studies and daily life?
- What does accessibility look like at your institution?
    - What barriers have you encountered as a student with a disability?
- What activities and interests do you participate in on- and off-campus?

Interview 2

- Describe your needs as a student with a mobility impairment.
- What supports have you received on and off campus as a student with a disability?
- What do you know about on-campus services for students with disabilities? Tell me about your experiences with those services.
- Describe your experiences discussing your needs related to your disability with instructors or other campus officials.
- Describe your knowledge of your rights as a student with a disability.
- Describe your experiences with self-advocacy in your postsecondary environment:
    - What does self-advocacy look like for you on campus?
    - What is your comfort-level with self-advocacy?
    - How do you determine whether you need to advocate for yourself?
    - What do you need to know in order to advocate for yourself?
    - How do you feel when you advocate for yourself?
    - What are instances when you have needed to advocate for yourself on campus?
    - What have been the outcomes when you have self-advocated?
- What do you want students, faculty, and staff to know about your experiences as a student with a disability?

APPENDIX E: REQUEST FOR PARTICIPANTS

I am conducting my qualitative phenomenological study for my doctoral dissertation on self-advocacy for postsecondary students who use mobility aids. I am looking for 4 - 6 participants for my study to answer questions during a minimum of two interviews. Each interview will last approximately an hour. A follow-up interview may be necessary as well based on data from the first two interviews. Because of the COVID-19 pandemic, interviews for this study will be conducted through video conference. I am looking for participants who meet the following criteria:

- Have a permanent mobility impairment that requires use of a mobility aid
- Regular use of a mobility aid
- Currently attending a two- or four-year institution pursuing an undergraduate degree
- Ability to provide consent to participate in the study

If you meet the criteria or know someone who meets the criteria and is interested in participating in the study, please let me know, and I will work with you to contact the individual as a potential participant.

APPENDIX F: QUESTIONNAIRE TO IDENTIFY POTENTIAL PARTICIPANTS

Questionnaire for potential participants in a study on disability in education

Thank you for completing this brief questionnaire. This questionnaire will help identify potential participants for my doctoral dissertation study - "Self-advocacy for Postsecondary Students who use Mobility Aids." Completing this questionnaire does not obligate you to participate in the study. This questionnaire is not the actual study. Questions about this study or form can be directed to me, Erin Moore at e_moore4@u.pacific.edu.

What kind of disability do you have (choose all that apply)*

- ☐ Mobility/ambulatory impairment/disability (cerebral palsy, spina bifida, spinal cord injury, deafness, etc.)
- ☐ Cognitive disability (autism, ADHD, dyslexia, intellectual disability, learning disability, etc.)
- ☐ Psychological disability (depression, anxiety disorder, bipolar disorder, PTSD, etc.)
- ☐ Other

How often do you use a mobility aid/device (wheelchair, walker, cane, crutches, etc.)?

- ☐ Never
- ☐ Sometimes (monthly or less)
- ☐ Often (weekly or less)
- ☐ Always

How long have you had your disability/How long have you had the diagnosis?

- ☐ Less than 1 year
- ☐ 1 – 5 years
- ☐ 6 – 10 years
- ☐ 11 – 20 years
- ☐ 20 + years

Are you currently an undergraduate student attending a two-year or four-year postsecondary institution (community college, technical school, four-year college or university)?

- ☐ Yes
- ☐ No

By providing information in the next section, you understand that you may be contacted via email for an invitation to participate in the study. Completing this information does not obligate you to participate in the study. This questionnaire is not the study.

Your name

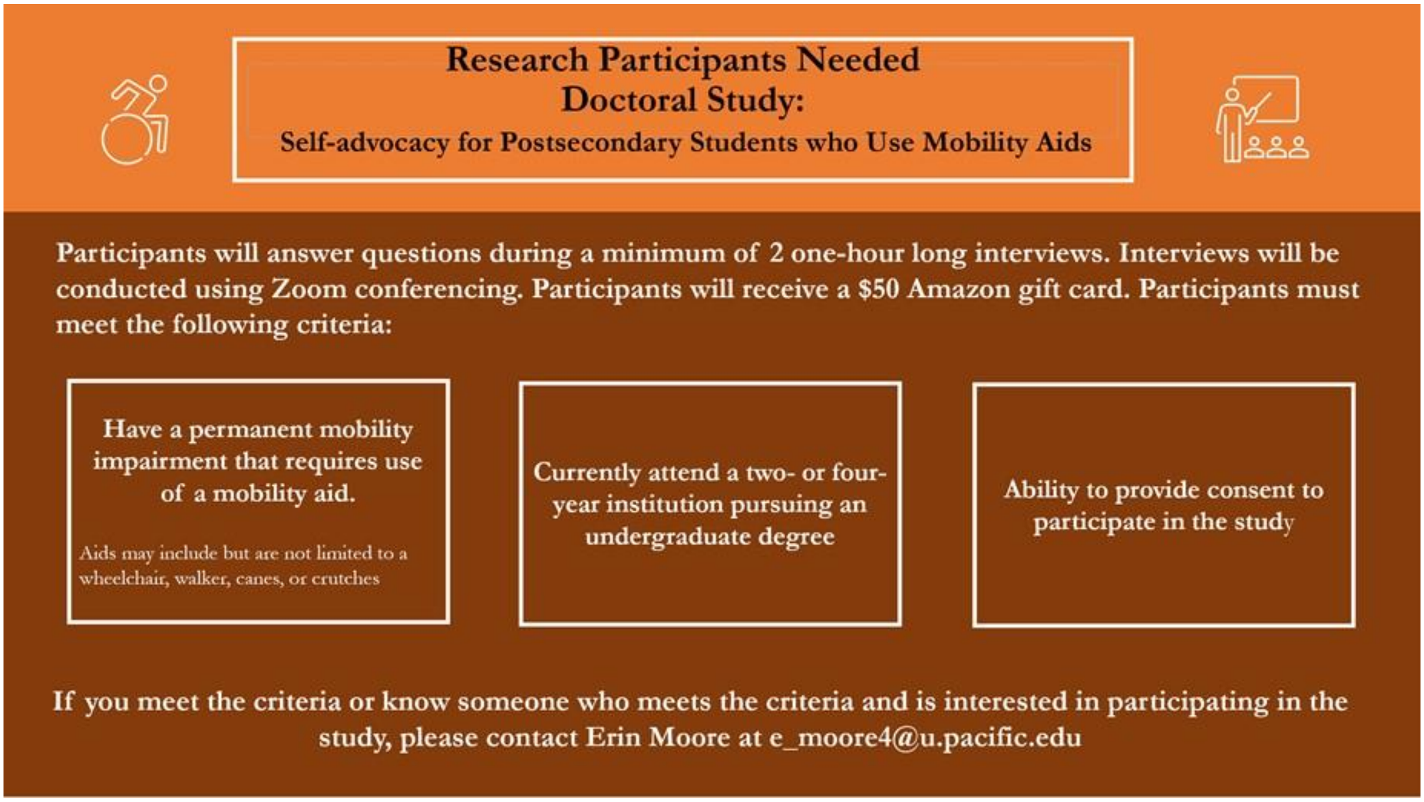
Your email address

Do you agree to receive an email inviting you to participate in the study if you meet the study criteria? Agreeing to be emailed does not obligate you to participate in the study.

☐ Yes

☐ No

APPENDIX G: FLYER REQUESTING PARTICIPANTS



Research Participants Needed
Doctoral Study:
Self-advocacy for Postsecondary Students who Use Mobility Aids

Participants will answer questions during a minimum of 2 one-hour long interviews. Interviews will be conducted using Zoom conferencing. Participants will receive a $50 Amazon gift card. Participants must meet the following criteria:

Have a permanent mobility impairment that requires use of a mobility aid.

Aids may include but are not limited to a wheelchair, walker, canes, or crutches

Currently attend a two- or four-year institution pursuing an undergraduate degree

Ability to provide consent to participate in the study

If you meet the criteria or know someone who meets the criteria and is interested in participating in the study, please contact Erin Moore at e_moore4@u.pacific.edu

APPENDIX H: APPROVALS AND DATA COLLECTION TIMELINE OF EVENTS

April 2020 – June 2020 - Proposal submission, committee selection

June 29, 2020 - Proposal approved - Identified and joined social media groups and identified contacts at postsecondary institutions for recruiting participants

September 28, 2020 – submitted IRB

October 14, 2020 – received IRB approval

October 16 – 31 – began requesting participants through disability-related social media pages and contacting disability services at multiple postsecondary institutions. Six participants indicated interest. Four did not meet criteria and two did not respond to messages.

October 31 – submitted IRB Modification to clarify explicitly contacting postsecondary institutions to recruit participants

November 2 – received IRB decision exempt – contacting postsecondary institutions was considered in the initial IRB application.

November – December 2020 – continued posting on social media, contacting disability-related organizations, and contacting disability services at postsecondary institutions, including my alma maters and institutions where colleagues and friends had contacts.

December – revised criteria with guidance from chair

December 21, 2020 – submitted IRB modification to update criteria, present a questionnaire for participant recruitment, and add a financial compensation to the study.

January 4, 2021 – received IRB modifications approved

January 8, 2021 – began posting updated criteria and questionnaire on social media pages. Emailed updated criteria to disability services at postsecondary institutions.

January 2021– Continued networking by attending virtual meetings through disability-related social media groups; reached out to potential participants via email who indicated they meet criteria on the questionnaire, and they were willing to participate in the study.

January 14, 2021 – completed first interview with first participant - Rory

January 15, 2021 – transcribed first interview and conducted first interview with second participant – Casey

January 16, 2021 – transcribed first interview with second participant

January 18, 2021 – completed second interview with first participant. Transcribed second interview with first participant

January 22, 2021 – completed second interview with second participant.

January 23, 2021 –transcribed second interview with second participant

January 31, 2021 – completed interview with participant to ensure quality of data collection and continue practicing interview techniques (data not included in the study – participant from outside the U.S.)

February 1, 2021 – completed first interview with third participant – Jordan

February 3, 2021 – transcribed first interview with third participant

February 6, 2021 – completed interview with participant not participating in the study – (data not included in the study – participant attempted to be interviewed later under a different name)

February 10, 2021 – completed second interview with third participant – Jordan

February 12, 2021 – transcribed second interview with third participant – Jordan

February 15, 2021 – completed first interview with fourth participant and transcribed the interview – Quinn

February 22, 2021 – completed second interview with fourth participant – Quinn

February 24, 2021 – transcribed second interview with fourth participant – Quinn

February 25, 2021 – completed third interview with fourth participant – Quinn

February 27, 2021 – transcribed third interview with fourth participant – Quinn

March 9, 2021 – completed first interview with fifth participant – Jamie

March 10, 2021 – transcribed first interview with fifth participant – Jamie; sent description drafts to Rory, Casey, Jordan, and Quinn for feedback. Received clarification feedback from Rory, Casey, and Quinn. Jordan confirmed receipt and accuracy of the description.

March 11, 2021 – completed second interview with fifth participant – Jamie

March 13, 2021 – transcribed second interview with fifth participant – Jamie

Marcy 14, 2021 – sent description draft to Jamie for feedback. Received confirmation of receipt and accuracy of the description

*Bracketing completed before and after interviews and after transcriptions