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Students with Chronic Illnesses Navigating the College Transition: Evidence from One Four-Year U.S. University

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Abstract

This study investigated postsecondary transition experiences among 20 four-year college students with chronic illnesses. Through a series of semi-structured interviews, this study addressed the following research question: What illness-related barriers do postsecondary students with chronic illnesses describe as being influential during their transitions to higher education? Data were analyzed using an applied thematic analysis approach (Guest et al., 2011). Findings indicated three key themes. Participants described: (a) unique challenges as they managed their medical care for the first time during the transition to college; (b) hesitancy to communicate with their parents about illness-related challenges during the transition; (c) influences on the transition from having fellow chronically ill immediate family members. Recommendations for disability service professionals and other relevant university staff members who work with chronically ill students are discussed.

Keywords: postsecondary transitions, chronic illness, transition supports, disability services

The transition to college represents a significant developmental milestone, marked by increased independence and responsibilities. As more individuals with chronic illnesses experience longer and healthier lives, many young people with chronic illnesses are attending college and are taking part in these transition experiences (Herts et al., 2014; Lemly et al., 2014; Maslow et al., 2011). Although the small body of research on students with chronic illnesses has uncovered a variety of unique challenges among these students in higher education settings, few studies have explored the transition to college among this group (Herts et al., 2014; Wodka & Barakat, 2007).

Cultivating better understandings around the experiences of students with chronic illnesses during the transition to college is a vital step in supporting this growing population. Since the Americans with Disabilities Act was legislated in 1990, only 13 empirical studies have investigated chronically ill college student well-being (Ball, Walter, & Fox, 2024), and only two studies have considered aspects of well-being specific to the college transition (Herts et al., 2014; Wodka & Barakat, 2007). In addition to scant research, definitional inconsistencies in who "counts" as being chronically ill further limit understanding (Bernell & Howard, 2016).

Although definitions of chronic illness continue to vary widely across the research literature, in the present study, chronic illness is defined as any mental or physical health conditions that (a) persist over time and (b) substantially impact aspects of a person's life (as determined by participants). We refer to mental health conditions as any persistent conditions with psychological origins, while we refer to physical health conditions as those originating from other aspects of the body. Our decision to include both types of illnesses under the "chronic illness" category stems from our belief that these two types of conditions can often be impossible to disaggregate from each other (e.g., when physical illness impacts mental health and vice versa).

Further, it is important to note the relationship between chronic illness and disability. Some scholars portray chronic illness as an inherent form of disability while others consider chronic illness as a disability only once physical symptoms manifest in disabling ways (e.g. Symeonidou, 2019). Although we suspect that the impetus for distinguishing chronic illness from

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disability within higher education contexts may be related to social stigma toward disability in higher education (see Bogart et al., 2019; Spencer et al., 2018), we wanted to honor participants' expressed identities. For some participants, this honoring meant using the terms "chronic illness" and "disability" interchangeably. However, we also noted one participant's careful distinction in referring to a peer as being "chronically ill, but not disabled" during their interview. For this reason, we refer to chronic illness as a separate construct apart from disability in all cases except for when participants specified otherwise.

If institutions are to implement policies and practices that are supportive of chronically ill students during their transitions to college, there is a need to investigate and better understand what works for students with chronic illnesses in higher education settings. This paper explores the unique factors that students with chronic illnesses perceived as influencing their transitions to higher education. Key findings and subsequent discussion offer research-supported strategies that higher education institutional practitioners may use to support successful college transitions among this group.

Chronically Ill College Student Well-being and Negative Outcomes

Within the existing body of literature on chronically ill college student well-being, several studies highlight associations between chronic illness and negative outcome indicators (e.g., mental health diagnoses, passive coping) among college students with chronic illnesses (Barakat & Wodka, 2006; Coutinho et al., 2021; Herts et al., 2014; Mullins et al., 2017; Sharkey et al., 2018; Trindade et al., 2018; Wodka & Barakat, 2007). Findings indicated that college students with chronic illnesses often experience higher rates of anxiety, depression, shame, and loneliness compared to their peers not experiencing chronic illness, and that mental health and social emotions vary by illness type (Mullins et al., 2017; Sharkey et al., 2018). While no current literature specifically focuses on the financial implications of chronic illness, research on disabled college students at large (where chronic health conditions are included as a disability subgroup), suggests that these students may further be subject to unique financial barriers compared to their non-disabled peers (e.g., large medical bills, less time for paid employment during the school year; Fox et al., 2022). Overall, these negative outcome indicators suggest a pressing need to strengthen support for chronically ill students during college.

College Transition for Chronically Ill Students

As noted previously, research among this group focusing specifically on the transition to college is even more sparse. One study that focused on transitioning students with chronic illnesses examined the role of family support and coping strategies on adolescents with chronic illnesses during their transitions to college (Wodka & Barakat, 2007). This study found that positive coping strategies (e.g., planning, positive reinterpretation, and growth) and family support were associated with positive outcomes among transitioning first-year students with chronic illnesses (Wodka & Barakat, 2007). Based on their results, the authors suggested that the development of adaptive coping skills may be particularly beneficial for college students with chronic illnesses during their transitions to college.

One other prior study investigated the experiences of transitioning college students with chronic illnesses, finding that many of these students reported heightened experiences of loneliness compared with non-chronically ill peers and low connectivity to their fellow classmates with chronic illnesses during the transition period (Herts et al., 2014). Out of the first-year, transitioning students they surveyed, 57% knew no other students with a chronic illness at their schools, and only 7% knew more than one other person with a chronic illness. Further, only 50% of first-year students with chronic illness(es) told more than five friends about their condition (Herts et al., 2014).

Interactions with Disability Services

In terms of students with chronic illnesses' interactions with disability services (DS) offices at their institutions during the transition to college (e.g., institutionally-operated offices that administer student accommodations), Herts and colleagues (2014) found that only 13% of first-year, transitioning students with physical illnesses and 17% of students with mental illnesses registered with their school's DS office. In comparison, recent National Center for Education Statistics suggest that approximately 37% of overall college students with disabilities choose to inform their institutions (NCES, 2022). One study partially clarified why students with certain illnesses may choose to forgo disability services; many individuals in that study reported not knowing that their conditions qualified for DS (Megivern, 2002). Relatedly, other recent studies found that the invisibility and fluctuation of many chronic illnesses made documenting an illness as a disability to DS offices particularly challenging (Spencer et al., 2018; Toller & Farrimond, 2021). Herts and colleagues further found that 85% of chronically ill freshmen did not have a

local physician to support them during their postsecondary transitions (2014). These findings suggest that support gaps may be an especially pressing issue for chronically ill students during their transitions to college, as many students may not know about available resources or how to navigate those resources when they initially arrive at their institutions.

Conceptual Framework: The Interactional Model of Disability

This study was theoretically grounded in the interactional model of disability (Guidry-Grimes, 2015). The interactional model of disability contends that disability exists as an interaction between medical impairment(s) and the social environment (Guidry-Grimes, 2015; Shakespeare, 2014). In describing this model, Shakespeare (2014) argued that impairment and environments are too entangled to be separated, with impairment only being experienced within particular social contexts. Thereby, in an interactional model, both innate impairments and social environments are responsible for disabling individuals. The model consequently responds through interventions that address both individual support needs and the need for system-level social reform (Guidry-Grimes, 2015; Shakespeare, 2014). Throughout this manuscript, we note a mixture of steps that transitioning postsecondary students can take, such as enrolling with DS, joining illness-centered student groups, as well as offering suggestions for adapting higher education environments, such as supporting connections among chronically ill students and making students aware of DS offerings specific to chronic illness. This mixture of suggestion types is driven by the interactional model approach. Further, the interchangeable use of person-first (e.g., students with chronic illnesses) and identity-first (e.g., chronically ill students) throughout this manuscript is driven by the interactional model framework.

Methods

To conduct this study, the authors employed the transformative paradigm and a basic interpretive research design. Initially introduced in the field of mixed methods, the transformative paradigm prioritizes social justice in its appeals toward policy and practice changes at system levels (Mertens et al., 2011). In this study, the transformative paradigm was used to target our inquiry on a specific pressing area–the transition to college–for potential policy and practice reform. Following this transformative paradigmatic approach, we crafted a specific set of questions intended to elicit responses based on this targeted area (e.g., through our applied thematic analysis approach, see "Analysis" subsection) while working to ensure that participant voices were central to the inquiry (e.g., through the use of our individually-targeted probing questions). Further, the basic interpretive design (also referred to as a "basic qualitative study" or "generic qualitative study") ensured we could make sense of how participants described their experiences as students with chronic illnesses during the transition to college (Merriam & Tisdell, 2015). Consistent with this design, we sought to produce descriptive themes that were especially relevant for improving transition practice and/or policy among this group.

Data Collection

This study examines selected data from a larger project that investigated chronically ill college students' experiences at one private, urban, four-year research university with an acceptance rate of less than 50% and located in the U.S. mid-Atlantic during fall 2022. Notably in the context of this study, the estimated cost of attendance for the institution where the study took place at the time this study was conducted exceeded $80,000 before financial aid, though 99% of students with demonstrated financial need through the Free Application for Federal Student Aid (FAFSA) and/or the College Scholarship Service (CSS) Profile received aid awards to help defray costs of attendance. Participants were recruited using snowball sampling (Creswell, 2014) starting with three student organizations and university offices at the institution. Participants were able to choose whether to complete interviews in-person on the school's campus (n = 2) or online via Zoom (n = 18). All interviews were audio recorded with participant consent using Zoom's audio recording capability (for in-person interviews, the researcher turned on Zoom's recording feature in the room and used it to record in-person interviews after permission to record was obtained). Interviews were scheduled for 60 to 90 minutes, with an average recorded interview time of approximately 75 minutes.

Although the larger study sample consisted of 20 participants, one participant from the study did not acquire their chronic illnesses until after beginning college. Thus, that participant was unable to speak to their transition experiences as an individual with chronic illness(es) and was excluded from the present study. The resulting final sample for the present study included 19 participants.

Participant Characteristics

During each interview, participants were asked to share other relevant demographic information. Of the 19 participants, 15 identified as women, two as men,

and two as gender non-binary. Eighteen were U.S. domestic-based students, while one participant was Canadian-based. Regarding their college status, five reported currently being first-year students (freshmen), three reported being second-year students (sophomores), four reported being third-year students (juniors), and seven reported being fourth- or fifth year students (seniors) at the time of their interviews. Eighteen participants moved away for college, while one participant commuted. When asked to describe the physical apparentness of their conditions (e.g., visible, invisible), 100% of participants described their conditions as being invisible. Illnesses represented by participants include the following: type 1 diabetes; arthritis-like symptoms (undiagnosed); co-occurring Ehlers Danlos syndrome and postural orthostatic tachycardia syndrome; post-traumatic stress disorder (2); chronic pain; co-occurring thrombocytosis and hypersomnia; Hashimoto's disease; long-lasting bronchitis; co-occurring depression, anxiety, obsessive compulsive disorder, and posttraumatic stress disorder; co-occurring irritable bowel syndrome and sexual/reproductive health issues; co-occurring depression, anxiety, obsessive compulsive disorder; chronic fatigue and suspected fibromyalgia (undiagnosed); co-occurring eosinophilic esophagitis, attention deficit hyperactivity disorder, and anxiety; co-occurring macular degeneration and anxiety; co-occurring major depressive disorder and anxiety; co-occurring chronic joint pain and anxiety; co-occurring chronic joint pain, gastritis, bipolar, and attention deficit hyperactivity disorder; co-occurring hemophilia and Crohn's disease.

Data Analysis

Initial research questions for the overarching study sought to explore barriers and facilitators to chronically ill students' life satisfaction during college (the overarching study was shifted from focusing on life satisfaction to more general experiences based on participant feedback once interviews began: Ball & Tuckwiller, 2024). As part of that inquiry, participants were asked an interview question where they reflected on their transition to college in relation to their chronic illness(es). Given participants' robust responses to both the question and subsequent probing questions, the following post-hoc research question was developed to better understand participants' transition-related experiences: What illness-related barriers do postsecondary students with chronic illnesses describe as being influential during their transitions to higher education? In analyzing these data, the authors engaged in a process of open and axial coding (Saldaña, 2016), leading to the generation of three key themes through an applied thematic analysis process (Guest et al., 2011). To begin, the first author completed initial coding. During this process, the first author kept analytic memos noting potential themes, connections to existing theory, potential research questions, and personal reflections on the data (Saldaña, 2016). In this phase, the authors formed a preliminary codebook, which consisted of 57 codes. In the second coding cycle, the first author recoded all transcript data using the codebook generated during phase one through qualitative data analysis software (Dedoose). She then refined codes to focus on the guiding research question identified during phase one coding and organized the codes to produce preliminary themes (Saldaña, 2016).

Although the first author coded the data, both researchers took part in researcher triangulation during the analysis process (Carter et al., 2014). The second author served as the first author's project advisor and met with the first author regularly to discuss her observations from individual interviews. We continued to meet during the analysis process to discuss potential key themes identified by the first author alongside data extracted from the interview transcripts. Through those discussions, we triangulated theories based on consensus for our conceptual framework. Following analysis, Issacson engaged in member checking with participants, where she communicated preliminary themes and gave participants the opportunity to provide feedback and/or choose their pseudonyms for inclusion in this study (Lincoln & Guba, 1985).

Positionality

As researchers who are invested in this population of students, we recognize the need to name our positionality toward this work. Issacson has two chronic illnesses: type 1 diabetes and multiple sclerosis (MS). In reflecting on her transition to college, specifically, the author notes that her MS was not yet diagnosed. Therefore, most of her transition experiences related to her experiences of type 1 diabetes and undiagnosed features of MS, which were incorrectly labeled as mental health conditions at the time. This blurred boundary between mental and physical health informed the definition of chronic illness used for this study, which included both mental and physical health conditions. Issacson's long and cumbersome MS diagnosis process also informed our recruitment strategy to advertise that no diagnosis was required for participation. Prior to Issacson leaving home for college, her parents had taken turns waking up and checking her blood sugar two to five times per night. However, Issacson began college just as continuous glucose monitors were gaining widespread popularity. This

development was largely responsible for equipping Issacson to move away and live on a college campus, although she notes that she often concealed extremely high and low blood sugars from her parents during her transition to campus life (a theme among participants in this study, as discussed below). To help ensure that Issacson did not extrapolate her personal experiences into the findings, she engaged in analytic memoing following interviews and disclosed points of similarity and departure in illness-related experiences with participants during interviews, as appropriate.

Tuckwiller is not an individual with a chronic illness diagnosis but is the parent of a young adult daughter with a chronic illness and a physical disability, both diagnosed at age 10, and concurrent mental health conditions at age 12. Her daughter has just completed the transition to college, having navigated the complex processes associated with requesting and receiving disability accommodations and support. Tuckwiller's experiences locating proper diagnosis and treatment for her daughter have also shaped her perspectives on gendered diagnosis and treatment disparities rampant in the healthcare system, and the interaction of these experiences with college transition processes for students with chronic physical and mental health conditions. Tuckwiller's close proximity to chronic illness during her daughter's transition to college informed her excitement and willingness to collaborate with Issacson on this study as her academic advisor.

Findings

In the following section, we offer three key themes that were especially relevant to the study's guiding research question: What illness-related barriers do postsecondary students with chronic illnesses describe as being influential during their transitions to higher education? The first theme describes common challenges as participants took over their medical care management for the first time during their transitions to college. In theme two, we highlight how multiple participants hesitated to share transition-related difficulties from their parents. Finally, in theme three, we note that multiple participants with genetically-influenced illnesses recalled how their transitions to college involved immediate family members who shared their own or closely related illnesses.

Theme One: Difficulties in Taking Over Medical Care Management during the Transition to College

As participants discussed their experiences related to chronic illness during their transitions to college, 13 brought up the challenge of taking over their medical care management while adjusting to living on their own for the first time. This theme was especially salient for students whose families had been heavily involved in their medical care management prior to college. For Participant K, as a first-year student, beginning college meant that she needed to learn how to manage her complex care needs independently from her mother and advocate for herself for the first time. She recalled, "Because I turned 18 and, like, not everyone would talk to her [Participant K's mother] on the phone anymore. It's like that kind of stuff. I had to start doing it more." Participant K needed to learn quickly how to navigate her own medical care management as she transitioned away to college after turning 18. Participant K went on to note how she needed to do all this on top of typical adjustments associated with the transition to college, from managing new coursework expectations to establishing new friendships and getting involved with student organizations. Although Participant K reported making these adjustments successfully, she described how the tasks could be overwhelming and nearly impossible in certain instances.

Like Participant K, other participants reflected on how taking over their illness-related medical care management during the transition to college could be challenging. For Participant A, getting his specialized medication shipped to him proved to be an especially difficult aspect of care management during his transition. Participant A quickly learned that he could not get the medicine shipped directly to his dorm, nor could he have it sent to his university's medical facilities. After contacting various offices on campus to develop a plan, Participant A went outside of the school and got his medication sent to a local shipping facility. However, managing this aspect of his medical care proved difficult since the large physical weight of his medication made it difficult for him to carry from the shipping facility to his dorm. He reported feeling stuck, without a viable alternative to improve his care quality.

In terms of accessing local providers during the transition, Participant A and other participants described how accessing doctors could be difficult. Participant A recalled having to travel out of the area for his infusions, as he had trouble locating a center nearby on his own. Similarly, students who sought assistance from university health centers to help them navigate their new geographic area during the transition also experienced barriers. Participants L, J, and M all recalled that student mental health services stated that they were intended to be a temporary solution for mental health care. Participant J recalled her experience of seeking support from the university's mental health services office to find a local provider at her new college campus, sharing that,

> I was always reminded that this, that this has to be a temporary solution, I have to find someone myself, like I have to find, like, another psychiatrist outside [her institution] myself as fast as possible. And they didn't provide any support and like trying to, like do that.

When she asked for referrals to therapists in the area, the student mental health services office did provide her with a list of local resources. Upon reaching out to those providers, however, she learned that none of the resources that the university provided accepted her university-sponsored health insurance plan. Although she had attempted to locate a medical care provider by going to her university's mental health services, Participant J recalled how long the process took without someone to help connect her to a provider who would take her insurance, as she had never navigated this type of issue on her own before.

Once students did locate providers during the transition to college, the new administrative challenges of navigating medical care did not end. Participant I recalled, "For me, it's like trying to figure out the, like, just trying to figure out, like, [appointment] scheduling and stuff" that marked the most difficult aspect of her transition to college. In Participant I's case, she was careful to distinguish that her transition-related challenges did not stem from her chronic illness in a physiological sense, but that the amount of scheduling she had to learn to do was heightened by her need to learn to schedule and manage her medical appointments on top of other scheduling management tasks associated with the transition to college (e.g., scheduling classes and social commitments on her own for the first time).

Theme Two: Protecting Parents from Transition-Related Difficulties

Although several (n = 13) participants discussed how overwhelming it could be to assume responsibility for medical care management for the first time during their transitions to higher education, 10 participants also described wanting to protect their parents from knowing about any challenges associated with their postsecondary transitions. The term "parents" is used here in place of "caregivers" to reflect that all participants referred specifically to a single or set of parents in this study. Notably, all ten participants who described protecting parents also described financial concerns at other points of the interview (e.g., concerns about living in a one-income household, concerns about the strain particularly high medical bills could place on participants' families). For example, Participant D recalled that, "I didn't tell my mother that [I was struggling]. Like she's a single parent, but I was like, I couldn't tell her that I was taking time off [due to my illness]." Participant D reflected on her experiences of becoming overwhelmed with medical responsibilities after arriving at college, which resulted in her needing to take time off from school shortly after her transition. She did not want her mother to know about their challenges, out of concern that her mother was balancing a lot of responsibilities as a single parent. Therefore, Participant D took on all the financial penalties and logistic aspects of withdrawing without parental support. Although Participant D described that feeling unable to share challenges with her mother was emotionally difficult during an already anxiety-filled time, protecting her mother from knowing about the challenges was a central priority for Participant D during her transition to college.

Also out of concern for her mother's well-being during the transition, Participant F recalled, "My mom tries to send me money, but I realized I'm like, 'you don't have money to send, it's okay.'" Here, Participant F reflected on her difficulty with loan eligibility upon initially arriving at college due to her mother's credit history. Participant F shared that she has undergone financial hardship since arriving at college, and that being responsible for medication and medical care costs upon transitioning to college exacerbated that financial hardship. In both Participant D and Participant F's cases, they recognized that their mothers' strained financial positions did not revolve around their children's chronic illnesses, they described other factors (e.g., being a single mother and personal histories with debt) that influenced their families' financial positions. However, when chronic illness was implicated in financial hardship, for example, as participants needed money for medical care or needed their parent(s) to help them navigate medical issues and the potential need to withdraw for the semester, they often withheld struggles from their parents and were left to navigate such challenges alone.

In addition to describing tendencies toward protecting their parents from learning about illness-related hardships during the transition to college, other participants reflected on their desire to shield illness-related difficulties from parents, which was often specific to the transition to college and did not necessarily span the entire college experience. Participant H, for example, recalled how her mother was heavily involved with her type 1 diabetes management until Participant H left for college. When Participant H made the transition to higher education, she described how her mother suddenly began to worry, as the realization that Participant H had moved out on her own resonated a few months after she left

home. As Participant H has progressed through college, however, she noted that her mother now "knows that, you know, I can handle it myself." Participant H described how her mother continues to worry about Participant H's health, but that the initial transition period marked the most heightened anxiety period, as her mother entrusted Participant H with the high-stakes responsibility of managing her own medical care for the first time. Thus, Participant H became less hesitant to share illness-related problems with her mother as she progressed through college.

Cases where Students did Share Transition-Related Difficulties with Parents

Although several (n = 10) participants reported wanting to keep illness-related issues from their parents in cases where participants believed their parents to be financially and/or emotionally struggling, some exceptions to this theme were noted. As Participant G shared, "Freshman year of college … I had a little bit of a breakdown. And so my dad flew into the country; I started seeing a psychiatrist and everything." In Participant G's case, when she became overwhelmed during her initial semester of college and needed someone to assist with her medical care management, her father was able to be there and provide support. One notable difference between Participant G's case and previous examples shared by Participants D and F, however, is related to each respective families' economic situation. Notably, family economic information was not collected as part of the demographic information for this study, but each of these participants referred to their family's economic status at some point during their interviews. All three participants were chronically ill, and all three expressed illness-related barriers during the transition to college that would have been more readily managed with their family's support (either financial support or the ability for their parents to travel to and be present at their institution to help them during a crisis). In Participant G's case, she appeared to recognize that her father had the financial means to travel from another country to help her. Participant D and Participant F's descriptions of their relationships with their mothers indicated that both parents would be similarly willing to help their children in the face of illness-related issues that arose during their transitions to college, but these participants also recognized the further financial hardship that asking for support could cause in cases where chronic illness and economic concerns compounded.

Theme Three: Role of Chronically Ill Family Members during the Transition to College

Leaving Family with Related Illnesses during the Transition to College

For almost all students in this study, the transition to college marked a period when individuals moved away from people in their lives who shared their chronic illnesses. Although genetic influence varies drastically by chronic illness type, genetic factors have been long known as being influential in the development of numerous chronic diseases (Yoon et al., 2003). For six participants with illnesses that have a genetic component, this meant that the transition to college included leaving the only people in their lives who they felt truly understood what it felt like to have their illnesses: their parent(s) or sibling(s) who shared the same or similar illnesses.

Participant C, for example, reflected on her close relationship with her older sister, who shares her Hashimoto's disease. She recalled that, "My sister and I always talk about how, like, because we are sick every day, we know what it's like to be nauseous. We know what it's like to not feel well, we know what it's like, to like, have to go faster because you have to go to work, you have to go to class, whatever." Participant C shared that she felt a close bond with her sister, as her sister understood the nuances of how their shared chronic illness impacted their lives on a day-to-day basis. Although Participant C's sister had been a constant source of support leading to college, because they attended different institutions, Participant C no longer had daily access to talk with the only other person she knew who shared her illness while she was away at college. Participant C went on to share that she did not find other peers who shared her illness when she arrived at her institution, thereby making her sister's absence even more difficult during the college adjustment period. Similarly, other participants like Participants A (with his younger brother), B (with her older brother), and E (with his older brother) reflected on the bond they shared with their siblings over their mutual or closely related chronic illnesses, which made being separated from those siblings especially challenging.

Advantages of Having a Chronically Ill Sibling to Teach Students the Ropes of College

Leaving a support network was challenging for numerous participants during their transitions to college, but others recalled how having a chronically ill sibling could be beneficial during the transition. For Participant E, having a sibling who also had a disability was helpful in teaching him to navigate DS from the time he arrived at college, even though the

two brothers attended different institutions (note that the term "disability" opposed to "chronic illness" is used here to reflect the participant's self-description). Participant E shared that, because his brother also has a disability, "I've always been sort of aware of, like, Disability Support Services and stuff." While multiple participants were not aware that they could receive DS accommodations until well into their postsecondary experiences, Participant E knew about these services from the moment he arrived on campus since his older brother had already been through the process. In this sense, having a chronically ill sibling may well have allowed Participant E to access accommodations long before he otherwise would have.

Discussion

As the number of chronically ill students enrolling in higher education rises, findings from this study both enhance the current body of postsecondary transition literature and guide practitioners seeking to support chronically ill students during their transitions to college. Key findings from this study suggest that chronic illnesses interacted with participants' transitions to higher education in critical ways. From learning to take over their medical care management to leaving the people who understand their illnesses best, the transition to college can present unique barriers among this group of students. In the following section, we begin by considering our findings in relation to current federal policies that govern postsecondary transition processes among chronically ill students. Anchoring our findings in the context of these policies, we offer recommendations for institutional practitioners who work with chronically ill students. We also offer suggestions for future research based on this study, as well as study limitations.

Situating Chronic Illness within Postsecondary Transition Services

Currently, disability services offices are subject to both the Americans with Disabilities Act (ADA) and the Higher Education Opportunity Act (HEOA), which include postsecondary transition provisions for students with intellectual disabilities (ID) (Madaus & Kunkes, 2023). With the HEOA's passage in 2008, previous research noted an 84% increase in postsecondary programming targeted toward students with ID over the following decade (Grigal et al., 2022). Yet, even with these advancements for students with disabilities in higher education, chronic illness tends to be largely forgotten as a disability category in secondary transition and postsecondary education policies. Major legislative advancements at the secondary level, including the Individuals with Disabilities Education Act (IDEA, 2004), center on students with disabilities who receive Individualized Education Plans (IEPs) during high school (Madaus & Kunkes, 2023). IEP services ensure that students with disabilities defined under IDEA receive specialized support to aid their learning (e.g., special education services), which include the provision of transition planning for students' postsecondary education and/or careers (Madaus & Kunkes, 2023).

In this study, no participants reported having an IEP during high school. Rather, one participant discussed her Section 504 plan (under the Rehabilitation Act of 1973). These civil rights-rooted plans are conducive to numerous types of chronic illnesses, as they prohibit disability-based discrimination in schools that receive federal funding, thereby allowing for reasonable accommodations such as being able to take medication during the school day, access to specialized medical equipment, or preferential seating, for example (deBettencourt, 2002). However, because these chronically ill students who receive 504 plans are not yet identified as having a disability as defined under IDEA, they are not eligible for special education services and do not have IEPs nor the transition planning services that accompany them.

Without access to these mandated transition support services at the secondary level, chronically ill students may be less prepared than their fellow disabled peers to engage with eligibility-based ADA supports once they arrive at college. The ADA and the subsequent Americans with Disabilities Act Amendments Act (ADAAA) substantially expands on the types of conditions that can be classified as disabilities and thereby allow for greater numbers of chronically ill students to "count" as being disabled (Madaus & Kunkes, 2023). Unlike the entitlement-based provisions provided under IDEA, however, postsecondary services provided under the ADA and ADAAA focus on eligibility, whereby students must seek out accommodations and "prove" their disability to access those accommodations through a combination of self-reports, observations, and interactions with disability services staff, and information from external or third parties (e.g., documentation from a physician; AHEAD, 2012; Madaus & Kunkes, 2023). Yet, other existing research has indicated that this burden of proof can deter many disabled students from seeking accommodations at the postsecondary level (Tarconish et al., 2021). Although it remains to be seen how this burden of proof may impact chronically ill students specifically, it may reasonable to suspect that this burden may be intensified for students who were not prepared to navigate postsecondary accommoda-

tion services through mandated transition planning services during high school (e.g., chronically ill students who had 504s without an accompanying IEP). Therefore, the recommendations offered below are intended to (a) increase chronically ill student awareness about postsecondary disability services and (b) facilitate a smooth transition to college among a group of students with disabilities (in terms of their functional impairments and in recognition that not all chronically ill students identify as disabled) who may be less prepared for postsecondary transitions compared to peers who received transition services during high school.

Need for Medical Care Coordination Support

As noted in the first finding, several students (n = 13) expressed difficulty coordinating medical care during their transitions to college. One potential solution to help mitigate this barrier would be to offer postsecondary transition services specifically aimed toward connecting students with medical care providers. Participant J recalled how university health services may be unequipped to facilitate these types of connections, but transition coordinators within DS offices may be. Specific transition services and coordinators are often dedicated to serving transition-related support needs for students with disabilities at the college level (Grigal & Dwyre, 2010). To streamline medical care as students with chronic illnesses adjust to college, transition coordinators may reach out to chronically ill students to coordinate initial contact with a local specialist who accepts students' health insurance plans. The outreach component becomes especially important as students with chronic illnesses may not think about connecting with DS if they have not been prepared to do so during secondary transition programs (e.g., in cases where chronically ill students did not have an IEP during high school). Further, in line with both the findings on disability-related financial concerns in finding two and other existing literature demonstrating the unique costs associated with certain disabilities (including chronic health conditions; Fox et al., 2022), ensuring that students have access to affordable medical care that is covered by their health insurance plans may be especially important when facilitating medical care access during the transition to college. Although the student would maintain the bulk of responsibility for their care management, thereby aligning with the goal to promote students' independent living (and in line with the interactional model of disability), these simple types of support may well ease chronically ill students' challenges in locating providers and help ensure that they receive necessary medical care during their transitions to college.

Connecting Students with Chronic Illnesses to University Services Early

In the second finding, multiple students recalled not informing their parents about illness-related difficulties during their transitions. Without feeling like they could tell their parents about challenges, these participants were left to navigate challenges with little or no support. Although DS professionals should not be expected to fill the role of a parent, they may be able to provide vital illness-related support during transition periods when students may feel isolated from their caregivers. For this to happen, however, students with chronic illnesses must be enrolled with their schools' DS office.

Recent National Center for Education Statistics (NCES) data reveal that most chronically ill students do not inform their schools about their conditions (2022). This may be due to a number of reasons, one of which may be that many chronically ill students may previously not have received disability-related support in high school. As noted above, Participant H was the only participant who recalled having a 504 plan during high school, and no students recalled having IEPs. Rather than receiving transition support services to help prepare them for navigating support structures on their own once they got to college (e.g., transition services similar to the mandatory transition services that their peers with IEPs would be entitled to), most participants described how they were previously supported at home by family members.

For students who have not previously received support at the high school level, it may not feel immediately intuitive to register with DS upon arriving at college. Under ADA and ADAAA provisions, the eligibility-based nature of postsecondary supports may mean that students who are not taught about postsecondary disability services during high school (e.g., chronically ill students who do not have IEPs) may be increasingly likely to miss out on these services that are intended to support them (see Madaus & Kunkes, 2023). To bridge this gap in transition preparation between chronically ill and other disabled students, DS offices may expand targeted outreach to chronically ill students from the moment they arrive on campus. Additionally, lack of chronically ill students who tend to seek DS support suggests that other institutional offices may also consider outreach to chronically ill students in order to increase access to DS resources. University counseling centers and campus health services, for example, may be able to reach more chronically ill students who interact with their offices but who may not be aware that they are eligible for DS.

Connecting Chronically Ill Students with Each Other During the Transition

In finding three, participants recalled the difficulty of moving away from immediate family members who shared their same or closely related illnesses, as well as the advantages of having fellow chronically ill family members to guide them in navigating chronic illness in college. In a previous literature review, we discussed the potential of advocacy-rooted campus counterspaces as a means to facilitate chronically ill student well-being (Ball, Walter, & Fox, 2024). Further, we asked participants their opinions on these types of groups as part of this larger study (Ball & Tuckwiller, 2024). Distinct from support groups, campus counterspaces are student groups that emphasize collective resistance to dominant narratives of the larger institution through political advocacy around a particular identity (Keels, 2020). Although counterspaces represent numerous potential advantages for chronically ill college students at any level (e.g., not limited to the transition period), finding three from this study suggests specific benefits for chronically ill students who participate in these groups during the transition to college, when they (a) may have been separated from their fellow chronically ill family members for the first time and (b) may benefit from learning from older peers with chronic illnesses.

The interactional model of disability emphasizes the need for innate impairments to be considered alongside social environments and the ways in which mutual interaction of these factors may disable individuals (Guidry-Grimes, 2015). In this context, it should be considered that friends with a chronic illness, made through students' participation in a campus counterspace, are not able to replace having a family member who shares an illness nearby. However, by facilitating increased access to campus counterspaces during the transition to college, DS professionals may well be able to contribute to higher education environments where these students are able to retain a level of illness-centric community through connections with peers. For this reason, DS offices may be well-positioned to collaborate with student groups to promote institutional counterspaces to entering students, via targeted outreach efforts (e.g., posting flyers in DS offices, promoting institutional counterspaces at first-year orientation activities).

Limitations

Although the findings of this study offer important contributions to the postsecondary transition literature, multiple limitations should be considered. First, most findings centered on students' experiences in transitioning to independent living alongside their transitions to college. This limitation prevented the present study from sufficiently investigating the transition experiences of chronically ill students who commute to their institutions. Related, this study took place at a four-year institution and may offer limited implications for other institutional types (e.g., community college, where approximately 99% of students commute to their institutions; Craig, 2019). Future research should consider how transition experiences may differ among chronically ill students who commute to college. Regarding the study's sample limitations, it is important to note that the predominance of women (78.9%) may well have skewed the study's findings. This predominance of women participants aligns with other research studies involving chronically ill college students (e.g., Spencer and Almack's 2023 study, in which 100% of participants were female), but more research involving men and nonbinary students is necessary for better understanding the experiences of this entire college student population. It should also be noted that information regarding race was not evenly collected across all participants and prevented our ability to make inferences regarding race and chronic illness among participants. Next, it is important to consider that this study took place at a single institution and limited the study's context to a narrow scope that may not be generalizable to other institution types. Finally, as noted in the introduction, the definition of chronic illness varies considerably across research studies (Bernell & Howard, 2016). Although we attempted to be as inclusive as possible by inviting any student who identified as being chronically ill to participate, it is possible that a narrower operational definition of the term "chronic illness" (e.g., focusing on physically- or mentally-based illnesses only) would have led to different findings in this study.

Conclusion

The transition to higher education marks a new and exciting period of growth for students. However, this period also involves significant changes and increased responsibilities ranging from managing new types of coursework to making new friends. For students with chronic illnesses, the transition to college can present significant additional barriers as individuals often learn to navigate new demands and potentially seek illness-related educational support for the first time. Institutional disability service providers can play a vital role in supporting these students as they navigate increased demands compared with many of their peers. Through targeted practices at the disability service office level and within other relevant institutional offices (e.g., student health ser-

vices, counseling offices), postsecondary institutions can do their part to ensure that this growing group of students has the key tools and support structures to succeed in college.

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No Research About Us Without Us: A Quantitative Critical Investigation of Supportive Environment Scores for Disabled Students

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Abstract

Disabled students account for one of the largest underrepresented groups on college campuses. However, engagement research of this group has used large subgroups (e.g., students with sensory disabilities), leaving practitioners without the specificity to understand disability in useful ways; for example, blind and Deaf students are from distinct communities and have distinct needs. Using updated disability measures from the 2021 National Survey of Student Engagement, we used quantitative critical analysis methods and a Community-Based, Participatory Research approach to investigate supportive environments for over 22,000 disabled students. Our findings demonstrated that students with disabilities consistently reported lower Supportive Environment scores compared with the general population. Specifically, we found that students with mental health or developmental disabilities shared the lowest Supportive Environment scores compared with other disability categories. This research is crucial to understanding which groups of disabled students feel less supported on campus and provides opportunities for institutions to consider how to prioritize disability equity.

Keywords: disabled students, supportive environments, National Survey of Student Engagement, Community-Based Participatory Research (CBPR), quantitative critical analysis

Although disabled students are prominent on college campuses, studies show achievement gaps between disabled and nondisabled students (Akin & Huang, 2019; Fleming et al., 2017), but little is known about the extent to which institutional support is equitable (Price et al., 2017). The National Survey of Student Engagement (NSSE) is annually administered to first-year and senior students at participating four-year institutions, measuring behaviors related to educationally purposeful activities both inside and outside the classroom (National Survey of Student Engagement, n.d.-a). Recently, the NSSE expanded their disability questions to 15 items, providing a new opportunity to study distinct categories of disabilities that have yet to be researched. The purpose of the present study is to identify whether disabled students at four-year institutions experience varying levels of support in their educational environments compared to nondisabled students. We leverage new NSSE data using advanced statistical methods, data disaggregation, and Community-Based Participatory Research (CBPR) principles. The following research question guided our inquiry: Accounting for student backgrounds, are there significant differences in Supportive Environment scores between students identifying from 15 disability categories and the general population?

The focus of our research on Supportive Environment is an Engagement Indicator of the NSSE that measures student support services, such as academic services, social opportunities, wellness resources, and campus programming (Kuh, 2001; McCormick et al., 2013). This aspect of engagement was selected for the current study because it measures institutional responsibilities rather than student behavior. Foundational research from Chickering and Gamson (1987) suggests institutions are responsible for fostering sup-

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portive environments to enhance student learning and development. Tinto's (1986) Interactionist Theory also emphasizes the responsibility of the institution to create supportive environments to enhance student well-being and success. Recent research has related this measure to persistence (Griffin et al., 2022) and goal orientation (Miller et al., 2021).

Please note that throughout this article we use identity-first language (disabled person) rather than person-first (person with a disability) as person-first language tends to distance a person from their disability and thus the negative stigma of disability as a whole, while identity-first reclaims disability and recognizes the role of inaccessibility and oppressive systems in making someone disabled (Association on Higher Education and Disability, 2019). Identity-first language is the preferred terminology by a number of U.S. disability activists (National Center of Disability and Journalism, 2021) and by the Disabled[1] authors of this manuscript.

Literature Review

The Americans with Disabilities Act (ADA) of 1990 forbids discrimination against people with disabilities. Under the ADA, a disabled person may be defined as a person with a physical or mental impairment limiting one or more activities of daily living, an individual with a history or record of possessing a limiting impairment, and/or is perceived by others as having a limiting impairment. Disability is known as a "slippery" concept as it can vary in onset, daily functioning, bodily systems, duration, and appearance (Shildrick, 2009, p. 4; see also Evans et al., 2017). Snyder et al. (2019) found that 19.4% of all undergraduate students identified as having a disability. Disabled students frequently contend with lower retention rates, higher dropout rates, and longer degree completion times (De Los Santos et al., 2019). Several prominent barriers impacting disabled students include faculty perceptions, peer stigma, and difficult experiences with support service personnel (Hong, 2015). Additional obstacles to success for disabled college students include lack of awareness about campus resources, inability to provide sufficient disability documentation, and lack of access to useful accommodations (Toutain, 2019). The following review focuses on four components of creating a supportive environment: (a) academic accommodations, (b) stigma and disclosure, (c) faculty perceptions of disabled students, and (d) student affairs and supportive environments.

Academic Accommodations

A core component of creating a supporting environment is ensuring disabled students have access to academic accommodations, including knowing the process and feeling comfortable seeking the support needed. The academic accommodations process generally requires a letter of accommodation (LOA) (Barnard-Brak, 2010). The LOA outlines a student's specific academic accommodations that are to be provided by faculty, which is furnished by a disability resource office (DRO). Some students note that providing these LOAs to faculty has resulted in mixed results: some read them closely, others simply sign and move on (Barnard-Brak et al., 2010). Whatever the response by faculty is to the LOA can send a message to the student regarding the support or acceptance of their identity. Unfortunately, some students have experienced challenges when coordinating with faculty to gain academic accommodations (Sarrett, 2018). For instance, some students have noted that they have had interactions with faculty who believe certain academic accommodations may provide an unfair advantage compared to other students (Sarrett, 2018; Stein, 2013). Stein (2013) argues that an important way to remedy this conflict is to educate faculty on the need for, and importance of, supporting disabled students. The implementation of these accommodations can be problematic as well, especially if faculty do not respect confidentiality. Stein (2013) notes that participants who requested a notetaker in class, for example, often experience a breach of confidentiality when faculty state the name of students requiring notetakers to the entire class.

Furthermore, Barnard-Brak et al. (2010) outline three key themes related to academic accommodations for disabled students: scripting disclosure, negotiating academic accommodations, and downplaying their disability. *Scripting disclosure* refers to when disabled students prepare a script ahead of an attempt to engage with faculty regarding their disability. Negotiating academic accommodations with hesitant faculty is something each member of this referred study spoke of. While it is a violation of the ADA of 1990 to not provide accommodations that are duly required, the participants of Barnard-Brak et al.'s (2010) study often chose not to report violations as they felt that it was not effective and often caused more harm than it is worth. Finally, downplaying one's disability is exceedingly problematic. Although each student has a different perspective and experience, downplaying one's disability to faculty so they

1 One of our scholars, who organizes our campus' Disabled Student Union and engages with other Disability organizations, noted that in modern groups the D is capitalized when discussing the Disabled community as a cultural group and identity rather than people who experience disability as a whole, modeled after the use of capitalization in the Deaf community.

can be "...treated like a normal person" reflects inherent dominant narratives related to disability stigma (Barnard-Brak et al., 2010, p. 420).

Although faculty are required by law to implement the academic accommodations afforded to disabled students, it is often the DRO that coordinates and creates the LOA. In a study on academic accommodations for students on the autism spectrum, Sarrett (2018) found that the majority of participants had positive relationships with the DRO. The DRO office is not just for accommodations, but seeks to be a welcoming environment where students not only feel like they are not alone but are in a supportive, caring environment (Stein, 2013).

Disability support staff also help students learn vital time management skills and assist with advice throughout the semester. Sarrett (2018) identified the top five academic accommodations as "extended test time, note takers, distraction-free test areas (i.e., in a quiet room, testing alone), flexible or extended due dates for assignments, and the use of technology in the classroom (e.g., laptops, smart pens, etc.)" (p. 685). Furthermore, some students may choose to employ academic accommodations in some classes, but not all. This choice depends on several factors, namely the student's perception of their ability to succeed in a given class. Not only can institutional processes within academic accommodations and disability resource offices influence success, but the powerful social forces of stigma and disclosure also impact the ways in which disabled students experience accessing academic accommodations and navigate their campus environment.

Stigma and Disclosure

Academic accommodations or accommodations in general can be made challenging by the fear and/or effects of stigma around disclosing. The impacts of stigma and disclosure can come not only from classmates and peers, but also from faculty and staff. For instance, in their investigation into the experiences of disabled students, Francis et al. (2019) found that faculty and staff have both perpetuated stigma related to disability. Specifically, participants in their study note that faculty often do not read the accommodations section of the syllabus aloud, which sends a message to disabled students that they must advocate for themselves or that they are not valued. Although it was noted earlier that students have a generally positive perspective of DROs, the participants in this referred study had particularly harmful experiences with their campus DRO center, noting that staff in these offices have questioned students about their disabilities. This disconnect between students and staff demonstrates how unique the experience of disabled college students is when it comes to support and belonging.

Some students may feel comfortable sharing personal information about their disability, even finding it cathartic to do so, while others may choose not to disclose due to fear of stigma (Barnard-Brak et al., 2010). Unlike K-12 education in the United States where local education agencies identify disabled children, disabled students in higher education must self-disclose their disability if they wish to pursue academic accommodations (Cole & Cawthon, 2015). Less than a third of students with individualized education plans while in high school disclosed their disability to their colleges or universities (Newman & Madaus, 2015). Further complicating this dynamic, disabled students do not have to disclose their disability to faculty at all and can instead circumvent this conversation by disclosing to a DRO, and having the office facilitate the LOA with the list of accommodations (Stein, 2013). This flexibility in disclosure is essential for fostering inclusive learning environments that respect the diverse preferences and needs of all students.

Kranke et al. (2013) offer three pathways for disclosure for disabled students. First, some students tend to immediately inform faculty that they have a disability in attempts to heighten their professor's awareness. Second, some students may choose to delay disclosing their disability until they begin to struggle and acknowledge that academic accommodations would help them succeed. Third, some students simply never disclose because they feel as if they are not struggling at the moment or for other personal reasons. Regardless of the pathway students employ, if a student wishes to gain accommodations, they must formally disclose their disability to their institution's DRO. These three pathways demonstrate not only the complexity of identifying as Disabled but also implores scholars and practitioners to recognize that there are many reasons why a student may or may not elect to disclose their disability to others. Scholars have argued that the visibility of one's disability may be related to whether they will disclose or not. Specifically, O'Shea and Meyer (2016) found that students with non-apparent (less visible/invisible) disabilities have more options related to disclosing their disability, whereas some with visible disabilities are unable to conceal their disability even if they wish to do so.

Sense of Belonging

One way to address stigma is to ensure disabled students can develop a sense of belonging on campus. A sense of belonging is one in which students feel like their campus is inclusive of who they are as a person and whether they feel valued on campus (Vaccaro

et al., 2015). Research has noted that students with more than one disability associate their campuses as less supportive of their needs, underscoring the difficulty of assessing how the co-occurrence of disability impacts how students view their campus (Francis et al., 2022; Zilvinskis et al., 2021a). Fleming et al. (2017) confirmed the claims by Vaccaro et al. (2015) that supportive environments can help improve belonging for disabled students. These scholars found that student support services (such as those provided by student affairs educators) helped disabled students in their study feel like they belong on campus. Belonging was also a main finding in Lindell et al.'s (2021) study of students with intellectual disabilities. In that study, students shared how community is more than a campus and its furnishings; staff, faculty, and student peers all have a role in ensuring students feel a sense of belonging in their education environment.

Vaccaro and Newman (2016) investigated belonging for privileged and minoritized disabled students. Their findings include three major themes: environmental perceptions, involvement, and relationships. Specifically, these researchers found privileged students tended to notice more positive components of their environment than did students from minoritized backgrounds. Privileged students also tended to involve themselves in campus activities revolving around "fun" (p. 935), whereas students of minoritized backgrounds involved themselves in activities where they could be their authentic selves. Finally, the role of relationships was different for privileged and students of minoritized backgrounds, with the former prioritizing fun and accessing task-related support, and the latter seeking deeper, authentic social relationships.

Faculty Perceptions of Disabled Students

When faculty treat academic accommodations as a way to improve access to their course material, students feel more included in the classroom and on campus (Fleming et al., 2017). The work of Baker et al. (2012) found that faculty were likely to view their campus as welcoming and inclusive but also understood that they needed better professional development to help all students feel comfortable talking about disability and asking for help. Hong (2015) used reflective journaling of 16 students to learn about the experiences of disabled college students, and found faculty perception the be a major theme. Students in this study noted that they were treated differently than their peers by faculty throughout their education, and that their past experiences informed whether they would disclose to faculty, with some going so far as to avoid disclosing entirely. This finding is reinforced by the work of O'Shea and Meyer (2016) who found that the choice for students to disclose their disability to faculty is heavily informed by their prior experiences both in high school and in college. Through interviews with four disabled college students on the efficacy of an expressive arts program, Murray and LaPorte (2022) found that faculty have a direct role in supporting disabled students, but they need more education on how to be effective allies.

Supportive Environments for All Disabled Students

Faculty are not the only ones on campus who might hold specific perceptions of disabled students. Academic support and student affairs professionals also need to be aware of how they think about and support disabled students, including disabled students from minoritized backgrounds. Zilvinskis et al. (2020) found that academic advisors tend to treat disabled students differently than other students, noting they are less likely to recommend learning opportunities like "study abroad, internships, [and] research projects" (p. 28). When disaggregating engagement outcomes by race, Zilvinskis et al. (2021a) called for practitioners to employ cultural knowledge when designing procedures and policies to ensure students have equitable access to such opportunities. Further research indicates that student affairs professionals should examine preconceived notions they may have on disability, and work to destigmatize it on their campus (Squires et al., 2018).

The benefits of institutional support, such as those offered by student affairs professionals, has been noted in the literature on disabled students in higher education. Using the Community College Survey of Student Engagement, Zilvinskis (2022) found that academic and career counseling are positively related to engagement outcomes for disabled students, particularly if they are first-generation students too. Other analysis on first-generation disabled college students found that these students have lower GPAs, less family and peer support, and endure greater financial stress (Lombardi et al., 2012). Lombardi et al. (2012) call for DROs to think critically about the needs of disabled students, particularly those who are first-generation students, when crafting support plans, policies, and procedures.

For example, to ensure supportive environments, Vaccaro et al. (2015) recommend that DRO staff avoid a deficit lens that treats disabled students as if they are at a disadvantage because of their disability. Doing so can ensure that disabled students feel welcomed instead of intimidated, which can have an avoidance effect (Hong, 2015). Overall, student affairs staff should understand that supportive environ-

ments, when implemented well, can increase disabled students' feelings of belonging and self-advocacy.

Theoretical and Research Framework

The current study drew upon ideas from quantitative critical research and Community Based Participatory Research to inform research design.

Tenets of Quantitative Critical Research

The following tenets of quantitative critical research guided the design of this study. First, Kimball et al. (2016) argued that using advanced statistical methodologies provides an opportunity for wider readership while diversifying analyses tailored to disabled students in higher education. For this study, we employed 15 distinct regressions to identify Supportive Environment scores for the many disability categories within the NSSE. Many scholars have also employed advanced statistical methodologies to study disabled college students, such as mediation analysis (Fleming et al., 2017), hierarchical linear modeling (Herrick et al., 2022), and structural equation modeling (Zilvinskis et al., 2023).

Second, disaggregation of data enhances scholars' understanding of this student population as disabilities are comparable across 15 specific categories (Vaccaro et al., 2015). Employing advanced statistical methods and data disaggregation in this study provided a nuanced understanding of disabled students' experiences across 15 categories within the NSSE. Scholars have practiced disaggregation for studies of disabled students not only to identify differences across disability groups, but for racial/ethnic groups as well (Harris et al., 2017; Ngo & Sundell, 2023; Zilvinskis et al., 2021a). Complementing these statistical techniques was building a research team composed of the subject we wanted to study–disabled college students.

Community-Based Participatory Research

One of the most unique aspects of this research was our use of a Community-Based Participatory Research (CBPR) approach to engage with members of the Disabled community and to emphasize their inclusion in the research process (Peña et al., 2020). According to Hacker (2013), "CBPR is built on a foundation of social justice and empowerment, with its roots in feminist theory and community organizing" (p. 4). The CBPR process is iterative, and aims to improve the collaboration and connection between academics and the communities they study. This type of research is used to highlight both the knowledge gleaned from scholars and the lived experiences of community members to produce findings that can also be utilized by practitioners and advocates (Cashman et al., 2008). Hacker (2013) refers to CBPR as "co-learning," meaning that the academics can learn from the community as the community learns from the academics (p. 43). Some of the many strengths of CBPR include the depth of knowledge that can be produced with the inclusion of insights from the community being studied, the nuance offered during the interpretation stage, and the ability of the research findings to support social action (Hacker, 2013). The strength of CBPR to collaborate with disabled individuals has been shown by other scholars. For example, Nicolaidis and Raymaker (2015) partnered with several universities, community leaders, and disabled individuals to create an accurate and accessible survey to learn about violence against individuals with developmental disabilities. Stack and McDonald (2018) also worked with community partners with developmental disabilities and found that their use of CBPR facilitated a pathway to empowerment for the individuals they collaborated with.

In this research, the community that engaged with this investigation was a team of nine university students ranging from the undergraduate, master, and doctoral levels. Overseeing the student team was an associate professor with extensive experience in disability research. All but one of the students identify as Disabled or as having a disability, as does the faculty member. This group was formed to collaborate on the research because we represent a community of researched–disabled college students in higher education.

This CBPR project was conducted in May 2023. The students and the faculty member met in person, from 9 a.m. until 4 p.m. for an entire week to do this work. The students were financially compensated for their contribution to the project. During the week of the project, students were taught the history of the NSSE and informed on how it has changed to more accurately collect information about diverse disability groups. The students also worked together to prepare an annotated bibliography and become familiar with the existing literature about disabled students. The first day of the week was devoted explicitly to this preparatory work; the faculty member explained the process of preparing a journal article for publication, including how to follow author submission guidelines and co-writing on a shared document. The remainder of the week featured small writing groups where students continued to review relevant literature, cowrote different sections of the article, and volunteered their personal reflections of what they were learning while the faculty member provided guidance and answered questions. Each member of the research team has their writing showcased in this article along with their

insights and reflections presented using footnotes. These considerations situate the experiences of disabled college students by providing real examples of how they are impacted by their campus environment.

Additionally, students learned how to interpret regression findings. During this interpretation phase, students discussed the coefficients of each disability group and related it to their own experiences.[2] Students worked both in small breakout groups and as a collective to workshop their ideas, tell stories, and discuss their own experiences. While preparing the manuscript, the research team used a text-to-speech program to listen to each sentence that was written and share feedback. The group would pause to discuss potential edits and did not move forward until the full team gave their approval of the work.

An important tenant of CBPR is that the partnership is equitable in all phases of the research (Hacker, 2013). As such, all students who participated in this research are authors of this text, and their reflections and recommendations are presented throughout the article to offer the lens of college students who have personal experiences related to their supportive environments. Shared authorship was also a priority for this project because ownership of the research produced is a notable strength of CBPR. In sum, the CBPR approach was used as a tool for empowerment with the ultimate goal that this study's findings lead to practical and effective change.

Methods and Results

Data Source

The NSSE surveys over 1,700 public and private four-year institutions and 250,000 students annually (National Survey of Student Engagement, n.d.-a). The survey gathers responses from first-year and senior students to gauge their engagement throughout their education. The survey collects information on 10 engagement indicators (Higher-Order Learning, Reflective & Integrative Learning, Learning Strategies, Quantitative Reasoning, Collaborative Learning, Discussions with Diverse Others, Student-Faculty Interaction, Effective Teaching Practices, Quality of Interactions, Supportive Environment). In 2021, the NSSE conducted a major revision of the disability item on the survey from a medicalized perspective to one more aligned with the social model of disability (Zilvinskis et al., 2021b). Informing the model design of this study, other NSSE research has found engagement to be related to other aspects of identity, such as gender (Rocconi et al., 2015), race and ethnicity (Fosnacht & Nailos, 2016; Harris & BrckaLorenz, 2017), and transfer status (Webber et al., 2013).

Sample and Measures

NSSE data were used with permission from the Indiana University Center for Postsecondary Research and the sample included 66,032 first-year and 81,058 senior students. Of these respondents, 15.0% identified as having a disability with 85.0% included in the general population (i.e., students who answered No to the question, "Do you have a disability or condition that impacts your learning, working, or living activities?"). The dependent variable, Supportive Environment, is the average of eight survey items standardized on a 0 to 60 point scale ($M = 32.22$, $\alpha = .89$). The Supportive Environment engagement indicator is based on responses to the following sub-questions within the overarching survey item stem, "To what extent does your institution prioritize the following?"

1. Providing support to help students succeed academically
2. Using learning support services (tutoring services, writing center, etc.)
3. Encouraging contact among students from different backgrounds (social, racial/ethnic, religious, etc.)
4. Providing opportunities to be involved socially
5. Providing support for your overall well-being (recreation, health care, counseling, etc.)
6. Helping you manage your nonacademic responsibilities (work, family, etc.)
7. Attending campus activities and events (performing arts, athletic events, etc.)
8. Attending events that address important social, economic, or political issues

(National Survey of Student Engagement, n.d.-b)

Independent variables included 15 categories of disability, each with a separate multiple regression model; these categories are not mutually exclusive as respondents could select all that apply. Miller et al.'s (2021) research on this outcome guided covariate selection including measures related to gender (33.2% men), race and ethnicity (58.4% white), transfer sta-

2 Students shared that the experience of this week-long research project was extremely meaningful because they got to build community with other disabled students at the same university. Specifically, students shared that this opportunity was the first time they could confidently identify with the Disabled community and feel supported in this setting with other students who understood their experiences.

tus (30.3% transfers), grades (62.3% mostly A's, see Table 1). Prior to analysis, each variable was checked for multicollinearity; the largest relationship existed between seniors and transfer measures (r = .38). For each model, independence of residuals was tested and resided within acceptable parameters (1 < Durbin–Watson < 3). Considering that the smallest subgroup is quite small (162 respondents with an intellectual disability) a moderate level of significance was used for this analysis ($p < 0.05$).

Results

Across all demographic variables reported in Table 1, disabled students reported lower mean scores for supportive environment compared to the general population. Some of the largest variations between disabled students and the general population included gender differences, class standing, and race. Specifically, disabled students who identify as men (M = 29.42) had lower mean scores compared to general population men (M = 31.84), and disabled women (M = 30.56) also exhibited lower mean scores compared to their general population counterparts (M = 33.11). In terms of class standing, disabled seniors (M = 29.51) reported lower mean scores compared to seniors from the general population (M = 32.14). Meanwhile, disabled Asian students (M = 30.09) and disabled Black or African American students (M = 31.01) reported lower mean scores compared to their general population counterparts (M = 32.89 and M = 33.29 respectively). As a whole, disabled students report lower mean scores for supportive environment than the general population across all demographic variables.

Unstandardized coefficients were consistently negative; however, their magnitude is less than the mean difference between groups, indicating some inflation before accounting for student background (see Table 2). Models' results indicate a statistically significant difference in average general population Supportive Environment scores and the average scores for almost all disability categories. The lowest supportive environment scores for disabled students included: another mental health or developmental condition (B = -2.93, β = -0.04, SE = 0.23), followed by depression (B = -2.74, β = -0.05, SE = 0.14), and anxiety (B = -2.34, β = -0.05, SE = 0.13), attention deficit or hyperactivity disorder (B = -2.24, β = -0.04, SE = 0.17), traumatic or acquired brain injury (B = -2.21, β = -0.01, SE = 0.57), autism spectrum (B = -2.14, β = -0.02, SE = 0.39), speech or communication disorder (B = -2.11, β = -0.01, SE = 0.75), chronic medical condition (B = -2.04, β = -0.03, SE = 0.22), disability or condition not listed (B = -1.97, β = -0.02, SE = 0.37), learning disability (B = -1.67, β = -0.02, SE = 0.26), mobility condition that does not affect walking (B = -1.64, β = -0.01, SE = 0.61), Deaf or hard of hearing (B = -1.63, β = -0.01, SE = 0.47), mobility condition that affects walking (B = -1.60, β = -0.01, SE = 0.38), and blind or low vision mobility condition that affects walking (B = -1.21, β = -0.01, SE = 0.47). Predictably, considering that statistical significance can be influenced by sample size, the exception was the smallest subgroup (Lomax & Hahs-Vaughn, 2012).

Discussion

Advanced statistical methods were employed, revealing significant differences in average Supportive Environment scores between the general population and 14 disability categories when accounting for other student demographics. Through disaggregation, we found that students with mental health or developmental disabilities averaged lower Supportive Environment scores than students with physical, sensory, and other disabilities. Interestingly, Mental Health and Developmental Disability were the largest subgroups, but the students in these subgroups reported the lowest levels of support.[3] Nonetheless, because disabled students reported lower mean scores for supportive environment than the general population across all demographic variables, the following discussion offers ways for institutions to improve the environment for all disabled students.

In the context of the overarching disability categories that the NSSE collects–sensory disability, physical disability, mental health and developmental disability, and other disabilities and conditions–it is important to distinguish how students who identify within these groups benefit from different kinds of support. These four overarching categories align with the format of the new NSSE disability item. Respondents are able to select each disability, but the response options are placed under each category as a heading (see Zilvinskis et al. (2021b) for item formatting). Below we discuss each of the discrete disability categories, provide context to the specific barriers students from these groups have experienced, and provide actionable recommendations for faculty and practitioners to improve the supportive environment for these specific disabilities.

3 Student team members with invisible disabilities identified professor flexibility and empathy as essential aspects of support. This includes inviting student questions, breaking assignments into manageable components, creating definitive syllabi and rubrics, and granting extensions (from members with ADHD).

Table 1

Sociodemographic Characteristics of Sample and Supportive Environment Mean Scores

	Disabled Students			General Population		
	n	%	*M*	*n*	%	*M*
Sample	22,115		30.07	124,975		32.60
Class standing						
First-year students	9,804	44.3	30.77	56,228	45.0	33.17
Seniors	12,311	55.7	29.51	68,747	55.0	32.14
Gender						
Man	5,540	25.1	29.42	41,433	33.2	31.84
Woman	14,872	67.2	30.56	81,413	65.1	33.11
Another gender identity	1,117	5.1	28.71	785	0.6	29.57
Prefer not to respond	586	2.6	26.15	1,344	1.1	26.87
Race and ethnicity						
Asian	747	3.4	30.09	9,494	7.6	32.89
Black or African American	1,287	5.8	31.01	10,976	8.8	33.29
Hispanic or Latina/o	1,385	6.3	30.53	13,858	11.1	33.51
Middle Eastern or North African	104	0.5	29.40	1,032	0.8	33.10
Multiracial	2,791	12.6	30.32	12,206	9.8	32.42
Another race or ethnicity	311	1.4	27.57	1,265	1.0	32.24
I prefer not to respond	734	3.3	25.20	3,199	2.6	28.26
White	14,756	66.7	30.19	72,945	58.4	32.51
Transfer status						
Transfer	7,514	34.0	29.13	37,846	30.3	31.48
Non-transfer	14,601	66.0	30.55	87,129	69.7	33.09
Grades						
Mostly As	11,528	52.1	30.99	77,818	62.3	33.43
Mostly Bs	8,537	38.6	29.63	41,592	33.3	31.58
Mostly Cs	2,050	9.3	26.69	5,565	4.5	28.70

Table 2

Descriptive Statistics and Regression Models Results Comparing Supportive Environment Scores Between the General Population with Disability Categories

	Supportive Environment		Regression Coefficients			
	n	*M*	*B*	*SE*	*ß*	*p*
General population	124,975	32.60	-	-	-	-
Sensory disability[a]						
Blind or low vision	687	30.54	-1.21	0.54	-0.01	0.03
Deaf or hard of hearing	944	29.98	-1.63	0.47	-0.01	0.00
Physical Disability						
Mobility condition that affects walking	1,424	30.03	-1.60	0.38	-0.01	0.00
Mobility condition that does not affect walking	548	29.88	-1.64	0.61	-0.01	0.01
Speech or communication disorder	357	28.99	-2.11	0.75	-0.01	0.01
Traumatic or acquired brain injury	618	29.11	-2.21	0.57	-0.01	0.00
Mental health or developmental disability						
Anxiety	14,648	29.66	-2.34	0.13	-0.05	0.00
Attention deficit or hyperactivity disorder	8,099	29.41	-2.24	0.17	-0.04	0.00
Autism spectrum	1,398	29.05	-2.14	0.39	-0.02	0.00
Depression	11,754	29.14	-2.74	0.14	-0.05	0.00
Another mental health or developmental disability (schizophrenia, eating disorder, etc.)	4,030	28.86	-2.93	0.23	-0.04	0.00
Another disability or condition						
Chronic medical condition (asthma, diabetes, Crohn's disease, etc.)	4.361	29.95	-2.04	0.22	-0.03	0.00
Learning disability	3,090	30.04	-1.67	0.26	-0.02	0.00
Intellectual disability	162	29.23	-2.07	1.12	-0.01	0.06
Disability or condition is not listed	1,498	29.67	-1.97	0.37	-0.02	0.00

Note. Regression coefficients are independent variable effects for 15 regression models, which included covariates accounting for student class standing, gender, race and ethnicity, transfer status, and grades.
[a] These four overarching categories align with the format of the new NSSE disability item. Respondents are able to select each disability, but the response options are placed under each category as a heading. See Zilvinskis et al. (2021b) for item formatting.

Sensory Disabilities

The term "sensory disabilities" refers to neurological disorders that affect a person's ability to process information, including visual, hearing, and tactile disorders. Within the sensory disability category, there are many strategies institutional faculty and staff can use to create a supportive environment. For example, students who identify as blind or low vision have been found to benefit from strategic support from faculty and staff in seeking out not only on-campus support but support from other means off campus (Schuck et al., 2019).

To offset the deficit of support found in this study, educators should be cognizant of how disabled students experience and express disability. For example, although Deaf or hard-of-hearing students are listed under the "sensory disability" section on the NSSE, not all who are Deaf view their condition as a disability. For those in the Deaf community, "Deaf" refers to a "linguistic and cultural group rather than a form of impairment" (Evans et al. 2017, p. 5). It is traditional within the Deaf community to use the capital "D" Deaf to refer to those who identify as members who are Deaf and engage with Deaf culture, such as using sign language. The lowercase "d" deaf is used for those whose deafness is primarily an audiological or medical experience (Pudans-Smith et al., 2019). Knowing how auditorily disabled students identify is key to creating a supportive environment.

To improve support within classroom environments, scholars provide specific challenges and barriers that sensory disabled students can experience in the classroom, such as difficulty in loud class discussions and understanding when emergency sirens are active. Educators should seek to reduce these barriers, by trying to maintain a distraction-free classroom, allowing students to work in smaller groups or in a quiet environment (such as break-out sessions), and ensuring that students do not talk over one another. This practice reminds students that each voice in the classroom is valued, and everyone has a perspective worthwhile to share.

Physical Disabilities

Physical disabilities is another group in which there is much diversity. However, students and scholars have noted many barriers to engagement. First, physically disabled students note that at times, they have felt as if people on campus refuse to look at them and that others assume that because they are physically disabled, they must also have a cognitive disability; along with other harmful stereotypes which negate the value and perspective these students bring to the campus community (Bialka et al., 2017). To offset these stereotypes, it is recommended that staff and faculty participate in anti-ableism training and other educational opportunities. Substantiating our study's trend, Carroll et al. (2020) found physically disabled students are less engaged compared to those without physical disabilities often because of the location of activities and events.

For physically disabled students, especially those who are disabled in a way that impacts their ability to walk on campus, institutions must seek to remove physical barriers. Accessible entrances and bathrooms may be available, but inconvenient, or they may ostracize physically disabled students by forcing them to travel to access services.[4] Fortunately, the ADA of 1990 mandates that new construction be accessible, but educators and institutional staff must challenge whether the accessibility is equitable. Such a task can be difficult for campus constituents who may not have the power to incorporate such progressive changes, but faculty and staff can use their voice to educate those who may not understand this importance. Further, faculty can seek to ensure their classes are held in accessible locations and collaborate with DRO staff to ensure this happens.

Traumatic Brain Injuries (TBI) are another category of disability within the NSSE's disability item. Some of the most common symptoms associated with TBI include "headaches, dizziness, memory and balance/coordination problems" (Krause & Richards, 2014, p. 1305). Childers and Hux (2016) investigated the experiences of college students with mild TBI and noted barriers, such as requiring extra time to process and complete assignments, trouble initiating tasks, changes to emotional regulation, and "perceived invisibility" of their condition (p. 399). Krause and Richards (2014) found that providing students with structure, staying true to the course syllabus, having extra exam time, and a quiet testing location were all effective in supporting the success of these students. Ensuring these types of support for TBI disabled students can help these students feel like they are valued members of the campus community.

Speech or communication disorders (also known as fluency disorders) include stuttering, cluttering, and other conditions that impact how an individual expresses themselves vocally; such disorders are often apparent to others (Evans et al., 2017). In a study conducted on stuttering students, Werle and Byrd (2022) found that students experienced negative perceptions and stereotypes from every level of in-

4 One member of the research team who uses a variety of mobility aids noted they have been in classrooms that were inaccessible for larger mobility aids, limiting the support and therefore safety they were able to use going to those classes.

structor, from primary school through college. Their study also found that if students self-disclose their speech or communication disorder, professors then tend to act against the negative stereotypes they may have, ultimately improving their perceptions about the student. Self-disclosure for disabled students is a deeply personal decision that may not always happen (Barnard-Brak et al., 2010). Since many speech and communication disorders are apparent, it is important for faculty to be accepting and seek to learn about speech and communication disorders to prevent stereotypes from forming or being acted upon.

Mental Health and Developmental Disabilities

Mental health and developmental disabilities are another group within the disability community that experience unique barriers to their success and engagement. For instance, Sniatecki et al. (2015) investigated faculty perceptions of disabled students and found that faculty note they do not know enough information about these students. Thus, training on all disability types is needed. Particularly damaging, however, is the notion that faculty had the least positive attitude toward mental health disabled students (Sniatecki et al., 2015). This finding is especially concerning, as the rate at which mental health disabled students enroll in higher education only continues to grow (Evans et al., 2017). To address the concerns of the level of support found in this study, training for faculty in this area is sorely needed to deconstruct stigma and preconceived notions. Depression and anxiety are quite common on college campuses (Evans et al., 2017), and scholars have noted the importance of faculty openness and understanding in supporting students struggling with their mental health. Such support was especially needed during the COVID-19 pandemic (Grineski et al., 2024), highlighting the important role that faculty have in supporting their students.[5]

Attention-deficit/hyperactivity disorder (ADHD; sometimes referred to as attention-deficit disorder [ADD]) is another category of disability with unique needs. Costello and Stone (2012) note that a challenge for ADHD disabled students is lecture-style classes where students must sit and listen to a professor for nearly an hour (or longer) at a time while being expected to take notes. This challenge is magnified for some with ADHD because information processing can be difficult without "the metacognitive skills needed to receive information, evaluate it, select what is important, and produce a written summary within a matter of seconds" (p. 121). Other challenges associated with ADHD are memory and concentration (Turnbull et al., 2010) and executive function (Parker et al., 2011). To support ADD or ADHD disabled students, it is recommended that faculty and DRO staff implement "positive psychology," which can involve having a syllabus with clear expectations, invitations to speak with faculty when feeling challenged, and tips for how to be successful in the course (Tincani, 2004). In addition to these interventions, it is recommended that support staff provide opportunities for ADD or ADHD disabled students to set realistic goals for the semester and utilize counseling or peer mentoring (Brown et al., 2010).

Developmental disabilities, such as Autism or Autism Spectrum Disorder (ASD), are another aspect of the mental health or developmental disability group on the NSSE. Hewitt (2011) noted the specific challenges that autistic students can experience in their transition to higher education, such as navigating social situations, making eye contact, and challenges with executive function. Between these unique needs and lower levels of support found in this study, these students require tailored support. Brown (2017) notes that while nearly all institutions provide some type of academic accommodations to help students in the classroom, only 28% of institutions offer specific services for autistic students. DRO staff should seek to provide tailored support. Workshops or programs can be designed with students, which can help earn buy-in and ensure services meet their needs.

Another Disability or Condition

The last main category of disability used on the new NSSE update is composed of four groups: chronic medical conditions, learning disabilities, intellectual disabilities, and disability or condition not listed. Chronic medical conditions can be quite complex, and it is recommended that faculty seek to reduce pressure on these students. Evans et al. (2017) notes that classroom attendance policies can be difficult for chronically disabled students to adhere to, as some days their condition may be harder to manage. Faculty should not be expected to overlook their attendance policies but should revise them to meet the needs of the current classroom of students. Faculty could consult with the campus DRO office and the students themselves. Speaking with the students to learn how best to support them is vital to ensuring that those who are chronically disabled can be active class members but not feel pressured to attend class when ill.

Learning disabilities can be diverse and affect students in many different ways. For college students,

5 Students shared that when faculty are open about their own experiences with mental health, it makes them more comfortable approaching those professors when they need additional support (from students with depression, anxiety, and OCD)

learning disabilities can manifest in ways that impact how a student reads, writes, and recalls memory (Costello & Stone, 2012). Cawthon and Cole (2010) identify student-faculty interaction as a barrier for some students with learning disabilities, noting that while faculty may believe an interaction they had with a learning disabled student was positive, the student may not feel the same way. Specifically, Cawthorn and Cole (2010) identify gaps in faculty knowledge about how to support learning disabled students, especially with accommodations. Other challenges noted by learning disabled students include faculty who are unwilling to provide accommodations, difficulty scheduling meetings with faculty, and trouble scheduling with a counseling center. A recommendation for faculty working with learning disabled students is finding time to meet with students promptly and seeking out opportunities to educate oneself on the unique experiences, barriers, and how to sponsor success for this student group.

Intellectually disabled students were the smallest in our sample (n = 162) and the only nonsignificant finding, but they too have unique characteristics and needs for support to ensure their success. For instance, common challenges intellectually disabled students note are microaggressions, both individual and institutional (Eisenman et al., 2020). Of these, the most glaring is the notion that intellectually disabled students in their study felt like they were being treated like children. When looking for best practices to support intellectually disabled students, peer mentoring is popular since it provides the student with a peer who can help them learn campus culture, engage with others, and serve as an advocate for their success (Kleinert et al., 2012). For faculty with intellectually disabled students, it is important to treat them as adults who belong in the classroom. This involves communicating with these students, learning about disability, and seeking out opportunities to engage with intellectually disabled students on campus.

Implications for Practice

Implications for practice compel educators to make environments more supportive for all disabled students by recognizing their self-defined needs, providing accessible mentorship, creating assistantship opportunities, and interacting with the Disabled community outside the classroom and beyond the university (Brown & Broido, 2020). Additionally, institutions can adjust the campus environment to better support disabled students by implementing training for new hires, removing physical barriers, and providing reasonable accommodations (Aquino & Plump, 2022; Evans et al., 2017).[6] Educators can also employ Universal Design principles, such as equitable, flexible, simple and intuitive use, perceptible information, tolerance for error; and low physical effort, while designing spaces that are physically accessible for all (Evans et al., 2023). A recurring theme throughout this article is education. Education is important for faculty and staff on the diversity within disability, but also on the unique challenges and needs that students with diverse disabilities need for success.

The findings of this study coupled with the literature on disabled college students outline specific implications for DRO staff as well. For instance, DRO staff should seek to reframe the accommodations process, from a transactional process wherein students disclose a disability and then receive accommodations (Strimel et al., 2023) to a process that promotes a personal relationship with the students the office serves. Doing so may create opportunities where students feel comfortable sharing their experiences with faculty and DRO staff, as well as how supportive their campus feels. In their work on the positive implications of disability cultural centers in higher education, Chiang (2020) argues that partnering with student organizations can result in a wider reach. This approach shows the campus community that the DRO office is not just for specific groups of people, but that they too have a role in dismantling institutional ableism, have a presence on campus, and are consistently advocating for greater accessibility. Finally, across higher education, DROs often have terms like "support" and "services" embedded within promotional materials, the name of their office, or possibly even their mission statement (Thornton & Downs, 2010). These offices should discuss the message this may send to disabled students and the greater campus community and seek to remove medicalized messaging and terminology (such as "handicapped" or "special needs") or in favor of that which is more in line with the social model of disability.

DRO staff could also partner with faculty to implement disability-specific courses, such as a first-year experience/seminar. Such coursework may introduce students to the DRO early in their academic career to reduce disability stigma and promote proactive engagement with their office (Herbert et al., 2020). Moreover, every student is different, so there is no one-size-fits-all solution. Instead, institutions must create a culture wherein faculty, staff, and administrators are regularly learning about the students

6 Further, institutions should ensure programming is accessible to all students (from our research team members with Auditory Processing Disorder and Behcet's Disease).

they serve and the best practices to ensure their success. Creating this culture is a challenge, but it is vital to ensure that disabled students feel a sense of belonging on their campus and that their institution actively fosters their inclusion and success.

Limitations

A few limitations should inform the consideration of this research. Our findings may have been influenced by the recent update of the NSSE disability item, as 2021 was the first year students could answer the additional disability subgroup items on the survey (Zilvinskis et al., 2021b). Without combining multiple years of data, some of the subgroups were small, which may have contributed to the only insignificant relationship modeled (i.e., students with intellectual disabilities). Further, if the Bonferroni Correction were applied, considering that we created 15 models, the new standard for significance ($p < 0.003$) would preclude a few more categories achieving statistical significance. The decision not to use a Bonferroni Correction was made to balance between controlling for Type I errors and preserving statistical power, particularly given the exploratory nature of the research, the potential impact on small sample sizes, and the need for cautious interpretation and further validation in future studies. Also, the practical significance indicated by the standardized coefficients was small in magnitude (Mayhew et al., 2016), which shows that more research must be done to triangulate these findings before they represent the overall population of first-years and seniors at four-year institutions.

Compared with the national participation rate for disabled students (19%), the NSSE sample rate was smaller (15%), which may be due to a number of factors. First, the majority of disabled postsecondary students enroll at two-year institutions (Newman et al., 2011). Second, NSSE designers (2023) claim that the survey should take approximately 15 minutes to finish; however, for some disabled students, the time to complete the assessment may take much longer leading to noncompletion. Third, the language of the disability question may lead some respondents with a disability to be included in the general population if (a) they do not identify as Disabled personally, (b) have yet to be diagnosed, or (c) if their disability treatments result in limited impact on learning, work, or life. Another limitation of the current study was disability co-occurrence was not accounted for. Considering that a majority of respondents in our disabled subgroup selected more than one disability, this is an important area of research that was beyond the scope of the current work (see future research). Finally, an important limitation is the lack of consensus in the field regarding disability categorization. Specifically, this study used the NSSE's categorization of disability, but other scholars, disabled people, and practitioners may disagree with which disabilities make up each category.

Future Research

We encourage other scholars to incorporate a CBPR approach to their research when studying the experiences of disabled students. CBPR is a way to provide students with new skills and ensure that, as the stakeholders of the research, they are being meaningfully represented. Additionally, the insights and nuances that students can offer are extremely valuable when providing recommendations to other academics. Future research could also include a support services staff as part of the research team to allow for their unique perspectives.

The current study is only the beginning of new research that can be performed using NSSE's updated disability items. Future research can focus on other aspects of engagement, such as interaction with faculty, and participation in High-Impact Practices, such as undergraduate research. We urge educators to address low support for disabled students; however, more robust studies are needed to further explore the engagement of students with diverse disabilities. For example, the intellectual disability category had a sample size of 162 students, compared with the anxiety category reporting 14,648 students; meanwhile, the four smallest subgroups reported a *p*-value above 0.00 (see Table 2). Future research is required to build a multi-year dataset to study and measure the co-occurrence between these smaller subgroups. Many disabilities co-occur together, such as anxiety and depression (Levine et al., 2023) and ADHD and autism (Zablotsky et al., 2020). Therefore, the category with the largest effects, "another mental health or developmental disability" is overgeneralized. Similarly, ADHD and learning disabilities often co-occur, and this can manifest in and out of the classroom, especially related to tasks that involve writing (DuPaul et al., 2013). To further demonstrate challenges with studying co-occurrence of disability, it is known that TBI and depression also have higher rates of co-occurrence (Sullivan-Singh et al., 2014). Co-occurrence challenges societal understanding of disability, reiterating that disability is not a monolith and people are impacted in a multitude of ways by their disability or disabilities (Peña, 2014). Although accounting for co-occurrence was beyond the scope of this research, additional studies of these overlapping categories and/or a potential update to the survey item may clarify these subgroups specific demographics.

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An Evaluation of Adapted Physical Activity/Education Cataloged Course Descriptions: Exploring Content, Disability Frameworks, and Course Benefits

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Abstract

This study examined undergraduate Adapted Physical Activity/Education course descriptions for content, disability frameworks, and course benefits. A total of 599 course descriptions from 590 universities in the United States were evaluated using content analysis. Notably, disability-related content, such as definitions, was most frequently referenced. Of concern, medical model terminology and nonpreferred disability language were prominent, and only a small proportion of course descriptions directly highlight the benefits of taking the courses, minimizing their potential to recruit students into the classroom. Findings may have general and discipline-specific implications for revising course descriptions, including the need to replace offensive language to accurately represent courses and the value of course enrollment. Recommendations for how disability services offices, university faculty, and academic departments can engage in these efforts, both independently and through creating collaborative partnerships, are discussed.

Keywords: disability, course catalog, Kinesiology, content analysis, higher education

On September 20, 2021, a full-page ad in the *New York Times* read, "Dear fitness industry, there's something you should know. 81% of people with disabilities don't feel welcome in your spaces" (Degree, 2021). This press release from *Degree Deodorant's* #TrainersForHire campaign directly called to action physical activity and fitness organizations to better serve and include disabled persons. Such a call out was needed, given that research shows primary barriers to accessing physical activity for disabled children and adults include the lack of skill or limited awareness of disability among physical educators and other kinesiology professionals (Haegele et al., 2018; Shields & Synnot, 2016). As academic members of the Adapted Physical Activity (APA) field who strive to build a "knowledge base supporting the development of activities and delivery of services in the field of sport and physical activity for people with a disability" (Hutzler & Sherrill, 2007, p. 15), we feel the sting of this call-out. There remains a substantial need to prepare professionals to facilitate accessible and equitable physical activity opportunities for disabled persons.

Higher education institutions offer opportunities for kinesiology pre-professionals to enroll in courses and gain experiences in APA and in Adapted Physical Education (APE), the latter of which focuses on teacher training and the delivery of school-based physical education services to disabled children. In fact, courses in APA and APE (hereby abbreviated APA/E) often address and build competencies for implementing physical activity or physical education inclusive of disabled people (McNamara et al., 2022) and have elicited improvements in preservice physical educators' self-efficacy beliefs toward working with disabled students (Taliaferro et al., 2015). Exposure to and capacity building for APA/E is of great value to kinesiology pre-professionals and the broader field, especially as current rates recognize that one in four adults (27%) in the United States is disabled (Centers for Disease Control and Prevention, 2023). However, APA/E classes are seldom required across the undergraduate kinesiology curricula (Kwon, 2018). Unless kinesiology students choose the course as an elective, many will graduate without disability-related training

[1] *California State University, Chico;* [2] *The University of Utah;* [3] *University of New Hampshire;* [4] *Oregon State University*

and may feel unprepared to support disabled persons in their future practice. Requiring all kinesiology students to enroll in an APA/E course is optimal but may be unrealistic given differences in institutional resources and faculty expertise.

Targeted efforts to attract students to elect APA/E courses may ensure a larger base of pre-service professionals with capacity to develop and implement accessible programming. One strategy is attracting students through easily accessed, public-facing course content, such as course descriptions on university websites (Moogan et al., 2001). The purpose of this study was to analyze undergraduate APA/E course descriptions. Examining APA/E course descriptions allows for an initial understanding of how the course is portrayed to prospective students. Importantly, given the relevance of APA/E to disabled persons, examination of the language and word choices in APA/E course descriptions is a novel way to investigate how disability is contrived within written course materials and conveyed to students. Current discussions within APA/E question the language used in teaching, research, and practice to describe disability (Spencer et al., 2020), and thus it is important to critically evaluate course descriptions for alignment with contemporary discourse.

Literature Review

A diverse body of literature focuses on understanding and predicting student decision-making in higher education, including decisions to select courses (Szekeres, 2010). Students may make decisions about their programs of study based on a wide variety of influences, such as academic advisors, guidance counselors or service providers, parents, course syllabi, course descriptions, online rating services, connection to future employment, word of mouth, student workload, and level of convenience, among others (Babad, 2001; Davison & Price, 2009; Kim & Ekachai, 2020; Kulkarni & Vinuales, 2020; Milliron, 2008; Mourey et al., 2022; Szekeres, 2010). When selecting courses, students may also seek information from several sources, including university course catalogs that display course titles and descriptions (Babad et al., 1999; Kulkarni & Vinuales, 2020).

Researchers suggest that course descriptions may influence student attitudes toward, or interest in, enrolling in an undergraduate course (Mourey et al., 2022). Course descriptions are public-facing representations of academic studies and can offer a snapshot of course content, frameworks, and relevance to students (Lancelloti & Thomas, 2009; Rosa et al., 2016). With many courses competing for students' attention, strategic course descriptions can be necessary. Students may respond to course descriptions differently depending on their education stage and content familiarity. For example, simplified descriptions may attract prospective students, whereas those that hint at higher learning may be preferred among upper-division students (Mourey et al., 2022). Additionally, students with low confidence in the content may be more likely to enroll if the usefulness or benefits of a course are clearly stated, while students with high confidence prefer descriptions to focus on the content they will access (Lancelloti & Thomas, 2009). These data emphasize that course descriptions impact student enrollment decisions and therefore, exploration of APA/E course descriptions may have implications for understanding content trends, evaluating course alignment with training needs and social perspectives, and attracting a large range of kinesiology-related majors toward course topics. Increasing student enrollment in courses may strengthen the capacity of professionals in the field to enact inclusive and accessible teaching practices and increase equity within physical activity programming for disabled persons.

Only one known study, by McNamara and colleagues (2022), has examined course descriptions in APA/E courses. The researchers performed a content analysis on 30 syllabi, including the stated course descriptions, of introduction to APA/E undergraduate courses in the United States. Based on their analysis, McNamara et al. (2022) concluded that most courses heavily focused on disability-specific content, aligning with past summaries of APA/E course content (Kwon, 2018; Piletic & Davis, 2010). Also highlighted by the researchers was the use of outdated terminology that reflected the medical model of disability. Discussions of disability, including in APA/E, have historically been rooted in the medical model, emphasizing deficits and pathologies through terms like “handicapped” and “the mentally ill” (Andrews et al., 2022; Haegele & Hodge, 2016). In response, disabled persons and scholars encourage the integration of additional views of disability like the social model, which identifies social and environmental barriers. Proponents of the social model advocate for language that combats stigma by directly naming disability ("say the word") through the use of person-first and identity-first language (Andrews et al., 2022; Grenier, 2007; Rosa et al., 2016). Based on their findings, McNamara et al. (2022) recommended that faculty be critically aware of the language used in their course materials and their classrooms.

Findings from McNamara et al. (2022) provide meaningful, preliminary information on course descriptions in the APA/E field. However, several

delimitations of their work impact our capacity to understand course descriptions on a large scale or consider their potential to attract students to the field. First, the authors included a relatively small convenience sample that centered on physical education undergraduate programs, potentially eliciting a biased view of course descriptions compared to what is widely available within kinesiology programs nationally. Additionally, McNamara et al.'s (2022) discussion of disability terminology observed in their sample of course materials is important. APA/E has, over time, evolved from the provision of medicalized rehabilitation services to individualized, inclusive, and adapted programming for all (Hutzler & Sherrill, 2007). This shift has contributed to changes in knowledge and increased conversations of terminology and culturally informed representations of disability. However, the extent to which APA/E course descriptions across the field have been updated to reflect this evolution of terminology remains unknown. Course descriptions are public facing and the language used should represent the contemporary and preferred values of the field and disabled persons. Examinations of how disability is presented, including through disability models and language choice, across a larger national sample serve as an audit of current practices and may identify opportunities for necessary updates. Lastly, our current knowledge of APA/E course descriptions does not lend insight into the qualities of course descriptions that may entice students to enroll, such as the potential benefits or usefulness of courses to students' personal or career goals (Babad, 2001; Lancelloti & Thomas, 2009; Mourey et al., 2022). Further examinations of how course descriptions present or state a course's benefits may therefore be a critical addition to understanding APA/E course descriptions and their utility in the field.

An updated, large-scale evaluation of APA/E course descriptions can provide a current representation of courses that addresses the aforementioned issues. The present research, therefore, surveyed a nationally representative sample of APA/E course descriptions for course *content, disability frameworks,* and *course benefits* to provide a unique summary that updates and builds upon past literature. Specifically, the aims of this study were to examine the content (aim 1), the disability frameworks (aim 2), and course benefits (aim 3) directly presented within course descriptions of undergraduate APA/E courses in the course catalogs of 4-year U.S. institutions of higher education.

Method

Sample

A total of 599 APA/E course descriptions were included in this study. Course descriptions were drawn from 590 four-year universities across all major regions of the United States. Of the 590 universities, 311 (52.7%) were public and 279 (47.3%) were private non-profit. Table 1 provides additional characteristics of the universities from which all course descriptions were drawn.

Scope of Study and Search Strategy

Identification of relevant universities

The U.S. Department of Education offers public access to an online tool known as *College Navigator* (https://nces.ed.gov/collegenavigator), which can be used to explore the information of nearly 7,000 U.S. colleges and universities. Additional information regarding *College Navigator* and its use in research can be found elsewhere (Barnett et al., 2015; Ginder et al., 2018). A *College Navigator* search was conducted in June 2020 to identify all four-year, public or private non-profit, universities that offered bachelor's or graduate degrees in at least one of four categories (at the time of the search): (a) kinesiology and exercise science, (b) health and physical education/fitness, general, (c) health and physical education/fitness, other, and (d) physical education teaching and coaching. These degree options and categories were selected to represent programs that may offer undergraduate APA/E courses, given the cross-disciplinary nature of the field (Gill, 2007). Due to the search engine's result capacity (max 500), two separate searches were conducted to capture all universities. The complete search identified 869 U.S. universities and generated an Excel document that included the following information for each listing: university name, address, official website, type, degree(s) offered, campus setting, total student population, and undergraduate student population.

Identification of course descriptions

To locate APA/E course descriptions, the official website of each of the 869 universities were systematically audited for key course information. Trained research assistants used the university name (e.g., [masked for review process]) to conduct an internet search and access each university's website (e.g., [masked for review process]) and the respective 2020-2021 course catalog. The catalog was manually reviewed for APA/E courses. If the 2020-2021 catalog was not published or available online, the most recent academic catalog was searched instead, back dating no earlier than 2018 (e.g., 2019-2020 or 2018-2019).

Table 1

*Detailed characteristics of universities (*n*=590) that offer APA/E courses*

University Characteristic	All (n = 590)	Public (n = 311)	Private not-for-profit (n = 279)
U.S. Region:	-	-	-
Midwest	190 (32.2%)	82 (26.4%)	108 (38.7%)
Northeast	72 (12.2%)	43 (13.8%)	29 (10.4%)
Southeast	193 (32.7%)	99 (31.8%)	94 (33.7%)
Southwest	61 (10.3%)	38 (12.2%)	23 (8.2%)
West	74 (12.5%)	49 (15.8%)	25 (9.0%)
Undergraduates:	-	-	-
<1624 (min: 183)	147 (24.9%)	10 (3.2%)	137 (49.1%)
1624 – 3593	148 (25.1%)	49 (15.8%)	99 (35.5%)
3594 – 9937	148 (25.1%)	110 (35.4%)	38 (13.6%)
>9937 (max: 53,743)	147 (24.9%)	142 (45.7%)	5 (1.8%)
Campus Setting:	-	-	-
City	250 (42.4%)	150 (48.2%)	100 (35.8%)
Rural	33 (5.6%)	10 (3.2%)	23 (8.2%)
Suburb	114 (19.3%)	52 (16.7%)	62 (22.2%)
Town	193 (32.7%)	99 (31.8%)	94 (33.7%)

Note. Variables are drawn from the College Navigator database. U.S. Region and Campus setting variables levels reflect existing College Navigator labels. Undergraduate population variable levels were created to reflect descriptive quartiles across all 590 universities.

Inclusion and exclusion criteria

Listed course titles and descriptions were evaluated for APA/E content. All courses that met the following criteria were retained for further analysis: (a) the course related to physical activity, physical education, physical development, sport or performance (keywords include *physical education, physical activity* or terms such as *sport* or *movement*), (b) the course was specific to disabled persons, disability, or individuals with diverse abilities of any age group (keywords include *adapted, adaptive, modified* or *accessible, disability* or terms such as "*special*" or "*exceptional*"), and (c) the course included a lecture component. Upon further review, courses were excluded if the course: (a) focused primarily on fitness, exercise, or exercise prescription, (b) described the focus of the course as "special populations," such as pregnancy, osteoporosis, which did not explicitly include disabled people; (c) referenced "adapting" activity but did not focus on APA/E based on the title (e.g., Motor Development); or (d) could not be confirmed as a course offered in the previous three academic years (2018-2019, 2019-2020, 2020-2021) via the catalog. Courses not listed as recent as 2018 were assumed to no longer be offered. These inclusion and exclusion criteria were set to identify courses that primarily focus on disability populations and maintain a direct focus on courses that align with definitions of APA and APE (Hutzler & Sherrill, 2007).

Based on the catalogs, some universities offered more than one APA/E course, such as an introductory course and an advanced course (e.g., Advanced APA, Assessment and Program Evaluation in APE), that met the inclusion criteria. To standardize the number of courses analyzed per university, only the introductory (e.g., "Introduction to Adapted Physical Activity") or general APA/E (e.g., "Adapted Physical Education") course descriptions were included. This was consistent for all universities except for nine cases in which universities offered two separate

courses that both met the inclusion criteria and could not be distinguished as an introductory or advanced level based on the title, description, or course number (e.g., two courses titled "Adapted Physical Education" and "Adapted Physical Activity"). At the end of this process, 599 course descriptions from 590 different universities were included, indicating 67.9% of the 869 universities identified through *College Navigator* included at least one APA/E course, while 270 universities did not.

Data Extraction

Variables extracted verbatim from the university websites included: (a) course title, (b) course designator, and (c) course description, as reported in the official course catalog. All data extractions were reviewed manually at least twice and confirmed by the lead author. Any remaining disagreements were discussed with the research team until a final decision was made.

Data Coding and Analysis

A content analysis was conducted to manually code all course descriptions in alignment with the research questions. Content analysis is a descriptive, qualitative approach that can be used to systematically analyze text and uncover common themes among the data (Vaismoradi et al., 2016). Content analysis was selected for this study for two main reasons. First, at the start of this study, little was known of APA/E course descriptions. Content analysis methods are especially advantageous when research or understanding of a phenomenon is limited (Hsieh & Shannon, 2005). Additionally, a large amount of diverse data (i.e., 599 course descriptions using different formats, words, and word counts) were included in analysis. Content analysis is an efficient technique for describing and evaluating a large amount of data in a systematic way (Hsieh & Shannon, 2005; Vaismoradi et al., 2016).

Methods of both directed and summative content analysis were used to identify and quantify the use of predetermined words and topics within course descriptions (Hsieh & Shannon, 2005). Prior to the data coding process, several keywords and coding categories were deductively created based on relevant research findings in APA/E research, disability studies, and areas of interest among the researchers. For example, to explore how disability was framed within the course descriptions, three general categories commonly used to describe or define disability were identified (disability model, category, language). To initially generate the coding themes for each identified category, the first and second authors reviewed the data, made note of recurring words and phrases in the data that aligned within identified categories, and discussed common notes and areas of interest for coding. Several coding levels that could be used to code the data were then derived based on the common observations. After this process, a codebook was drafted that defined each coding theme, alongside definitions, coding levels, guidelines, and example keywords corresponding to each coding theme (Hsieh & Shannon, 2005). During the data coding process, the first and second authors revised and refined the codes and coding definitions based on new observations in the data and conversations regarding coding disagreements. As observations of new or recurring data that could not be clearly coded were identified, new coding levels were discussed, added to the codebook, and applied to already coded data.

Specifically, three general coding categories were generated to reflect the specific aims of the research question: to describe the (a) course content, (b) disability frameworks, and (c) course benefits presented in APA/E course descriptions. Course content was defined as APA/E topic areas that were directly named in the course description (Note: data were delimited to published course descriptions and were not verified in relation to course syllabi, calendars, or instructor practices). Content coding themes included disability content, teaching practices, behavior management, modifications and accommodations, legal issues, attitudes toward disability, and teacher orientation. These final coding themes represent common topic areas and recognized gaps in training identified by existing literature on APA/E course content (Kwon, 2018; McNamara et al., 2021; Piletic & Davis, 2010) and were selected by the authors to evaluate content (aim 1). It is important to note that codes were named to reflect common terms used in APA/E literature and that reoccurred in the data, regardless of alignment with contemporary disability discourse. For example, in APA/E literature, "managing" behavior is commonly described as an area that is missing from pre-service preparation. Therefore, the "behavior management" code was created prior to coding to reflect this literature and retained based on course descriptions in the sample that also used this term, despite that this specific phrasing problematically ignores the need for creating accommodating environments and providing consistent expectations. Disability frameworks were defined as the way in which disability was described, viewed, and referred to within the written course description. Disability framework coding themes included disability model, disability category, and disability language. These final coding themes represent common ways in which current literature has defined or

categorized disability (Andrews et al., 2022; Rosa et al., 2016) and were selected by the authors to evaluate how disability is referenced or conveyed within APA/E course descriptions (aim 2). Course benefits were defined as potential student benefits or learning outcomes of the course that were directly stated or referred to in the course description, regardless of confirmation or evidence of the benefit to enrolled students. Coding themes for course benefits included experiential component and benefit-based versus content-based. These final coding themes represent data-driven outcomes or benefits of APA/E courses and previous literature conducted on course descriptions and their benefits for prospective students (Lancelloti & Thomas, 2009). The final codebook used to guide the coding process is presented in Table 2.

To establish interrater reliability prior to coding the full sample, the first and second authors manually coded a small sample (10%, $n = 60$) of randomly selected course descriptions. Percent agreement was calculated as a measure of interrater reliability appropriate for coding the data (Feng, 2014). After the first round of coding, authors agreed on 405 and disagreed on 162 ratings out of 567 possible ratings (71.4%). Since at least 80% reliability was not met, the authors discussed their disagreements until consensus was met, revised the coding options and definitions to reflect their discussions, and restarted the coding process. After the second round of coding, authors agreed on 514 and disagreed on 86 ratings out of 600 possible ratings (85.67%). At this point, since at least 80% interrater reliability was reached for the first 10% of data (85.67%), the remaining data were distributed among the two authors and independently coded. Authors flagged any course descriptions that they were uncertain about coding; these descriptions were then reviewed and consensus coded. Upon completion of all data coding, descriptive statistics (n, %), alongside 95% confidence intervals (CI), were calculated for each level within the content (aim 1), disability frameworks (aim 2), and course benefits themes (aim 3).

Results

Descriptive statistics for all content, disability, and course benefits themes are presented in Tables 3, 4, and 5, respectively. The most common topic referenced in the course descriptions was disability ($n = 572$, 95.49%, 95% *CI* [0.94, 0.97]), followed by teaching practices ($n = 335$, 55.93%, 95% *CI* [0.52, 0.60]). The least common topic referenced was attitudes toward disability ($n = 6$, 1.00% 95% *CI* [0.00, 0.02]), followed by behavior management ($n = 33$, 5.51%, 95% *CI* [0.04, 0.08]). One-hundred and twenty-six (21.04%, 95% *CI* [0.18, 0.25]) courses were oriented toward physical educators.

Among the disability themes, most course descriptions presented disability as a general population, without naming specific disability types or groups ($n = 378$, 63.11%, 95% *CI* [0.59, 0.67]). Language that directly named disability, including person-first and identify-first disability language, was used most frequently ($n = 229$, 38.23%, 95% *CI* [0.34, 0.42]), followed by disability euphemisms ($n = 165$, 27.55%, 95% *CI* [0.24, 0.31]), and outdated terminology ($n = 109$, 18.20%, 95% *CI* [0.15, 0.21]). The majority of course descriptions did not describe disability using a particular model ($n = 342$, 57.10%, 95% *CI* [0.53, 0.61]). However, those using a model use the Medical Model ($n = 226$, 37.73%, 95% *CI* [0.34, 0.42]) more often than the Social Model ($n = 21$, 3.51%, 95% *CI* [0.02, 0.05]) or both models ($n = 10$, 1.67%, 95% *CI* [0.01, 0.03]).

Regarding course benefits themes, 244 descriptions referenced an experiential course component (40.73%, 95% *CI* [0.37, 0.45]). Of these 244, the most common experiential component stated was a field experience ($n = 118$, 19.70%, 95% *CI* [0.17, 0.23]), while the least common was a disability simulation ($n = 3$, 0.50%, 95% *CI* [0.00, 0.01]). The majority of course descriptions did not present potential benefits to students for taking the course and instead only referenced course content ($n = 493$, 82.30%, 95% *CI* [0.79, 0.85]). Only 21 (3.51%, 95% *CI* [0.02, 0.05]) descriptions were benefit-based, and 85 (14.19%, 95% *CI* [0.11, 0.17]) referenced both content and benefits of the course.

Discussion

This study appraised a nationally representative sample of 599 course descriptions from U.S. undergraduate APA/E courses to synthesize the public-facing presentation of course content, disability frameworks, and benefits. The present findings align with previous analyses of APA/E course content while offering new insight into the language used to describe disability and stated course benefits in course descriptions. Notably, disability-related content, such as "definitions" and "characteristics" of various disabilities, was the most frequently referenced content area referenced across the course descriptions. Of concern, medical model terminology and nonpreferred disability language are prominent, and only a small proportion of course descriptions highlight the potential benefits of courses for students, minimizing the field's potential to recruit a large range of kine-

Table 2

Definition, Levels and Coding Scheme per Coding Theme

Theme	Definition	Coding Levels	Coding Description
Disability Content	Words used to indicate disability-related content	(1) Yes	References disability, generally or specifically, regardless of framework
		(0) No	Does not reference
Teaching Practices	Words used to indicate teaching content	(1) Yes	References act of teaching or teaching strategies
		(0) No	Does not reference
Behavior Management	Words used to indicate behavior management content	(1) Behavior management	References implementing behavior management strategies
		(2) Behavior, general	References behavior broadly
		(0) No	Does not reference
Modifications and Accommodations	Words used to indicate the act of modifying	(1) Yes	References providing modifications and/or accommodations
		(0) No	Does not reference
Legal Issues	Words used to indicate legal content	(1) Yes	References legal mandates or historical perspectives of disability
		(0) No	Does not reference
Attitudes toward Disability	Words used to indicate content related to attitudes	(1) Yes	References attitudes or attitude change toward people with disability
		(0) No	Does not reference
Teacher orientation	Content is directed for prospective teachers	(1) Yes	References content, prerequisites, or testing specific to PETE
		(0) No	Does not reference
Disability Model	The way in which disability is defined, presented, or viewed	(1) Medical Model	Disability or disability experiences described using medical content.
		(2) Social Model	Disability or disability experiences described using social content.
		(3) Both	Medical and Social content used
		(0) N/A	Disability/ability not referenced
Disability Category	The way in which disabilities or diagnoses are named or labeled	(1) Disability, general	References disability, diagnoses, or conditions in general or as a group
		(2) Disabililty, specific	References or provides examples of specific disability types or diagnoses
		(3) Non-disability specific	References needs of all abilities and students, not just with disabilities
		(0) N/A	Disability not referenced

Theme	Definition	Coding Levels	Coding Description
Disability Language	Words used to define, describe, or refer to disability or population	(1) Offensive	Contradicts recommendations for respectful language
		(2) Ableist	Devalues people with disabilities compared to those without
		(3) Euphemism	Words intended to replace or put a "positive spin" on disability, without directly naming disability
		(4) Direct	Person-first or identify-first language that directly names disability
		(0) N/A	Disability not referenced
Experiential Component	Type of practical or experience-based course component listed within the description	(1) Field experience	References field-based or practical experiences in school-based setting
		(2) Practicum, formal	References practicum experience, school setting not specified
		(3) Practical, informal	References practical activities but no formal lab or practicum component
		(4) Simulation	References the act of simulating disability
		(0) No	Does not reference
Benefit-based vs. Content-based	The way in which the course is presented through the description	(1) Benefit-based	References the benefit, value, or importance of the course only
		(2) Content-based	References content and structure of the course only
		(3) Both	References both content and benefit of the course

Table 3

Descriptive Statistics for Course Description Content

Theme	Level	*n* (%)	95% *CI*
Disability Content	(1) Yes	572 (95.49%)	(0.94, 0.97)
	(0) No	27 (4.51%)	(0.03, 0.06)
Teaching Practices	(1) Yes	335 (55.93%)	(0.52, 0.60)
	(0) No	264 (44.07%)	(0.40, 0.48)
Behavior Management	(1) Behavior management	18 (3.01%)	(0.02, 0.05)
	(2) Behavior, general	15 (2.50%)	(0.01, 0.04)
	(0) No	566 (94.49%)	(0.92, 0.96)
Modifications and Accommodations	(1) Yes	219 (36.56%)	(0.33, 0.41)
	(0) No	380 (63.44%)	(0.59, 0.67)
Legal Issues	(1) Yes	139 (23.21%)	(0.20, 0.27)
	(0) No	460 (76.79%)	(0.73, 0.80)
Attitudes Toward Disabiity	(1) Yes	6 (1.00%)	(0.00, 0.02)
	(0) No	593 (99.00%)	(0.98, 1.00)
Teacher-Oriented	(1) Yes	126 (21.04%)	(0.18, 0.25)
	(0) No	473 (78.96%)	(0.75, 0.82)

Table 4

Descriptive Statistics (n, %) *for Disability Frameworks*

Theme	Level		*n* (%)	95% *CI*
Disability Model	(1)	Medical Model	226 (37.73%)	(0.34, 0.42)
	(2)	Social Model	21 (3.51%)	(0.02, 0.05)
	(3)	Both	10 (1.67%)	(0.01, 0.03)
	(0)	Cannot be inferred	342 (57.10%)	(0.53, 0.61)
Disability Category	(1)	General	378 (63.11%)	(0.59, 0.67)
	(2)	Subgroup	146 (24.37%)	(0.21, 0.28)
	(3)	All abilities	48 (8.01%)	(0.06, 0.10)
	(0)	Cannot be inferred	27 (4.51%)	(0.03, 0.06)
Disability Language	(1)	Offensive	109 (18.20%)	(0.15, 0.21)
	(2)	Ableist	47 (7.85%)	(0.06, 0.10)
	(3)	Euphemism	165 (27.55%)	(0.24, 0.31)
	(4)	Direct	229 (38.23%)	(0.34, 0.42)
	(0)	Cannot be inferred	49 (8.18%)	(0.06, 0.11)

Table 5

Descriptive Statistics (n, %) *for Course Benefits*

Theme	Level		*n* (%)	95% *CI*
Experiential Component	(1)	Field experience	118 (19.70%)	(0.17, 0.23)
	(2)	Formal practicum	85 (14.19%)	(0.11, 0.17)
	(3)	Practical	38 (6.34%)	(0.05, 0.09)
	(4)	Simulation	3 (0.50%)	(0.00, 0.01)
	(0)	No	355 (59.27%)	(0.55, 0.63)
Benefit-based vs. Content-based	(1)	Benefit-based	21 (3.51%)	(0.02, 0.05)
	(2)	Content-based	493 (82.30%)	(0.79, 0.85)
	(3)	Both	85 (14.19%)	(0.11, 0.17)

siology students into the classroom. Our results suggest a critical need for course description updates that reflect disability community perspectives and showcase the value of APA/E coursework for kinesiology students more broadly.

Course Content

Disability-related content was prominent across 95.5% of course descriptions and is consistent with previous reports that APA/E courses center diagnosis- or impairment-specific content (Kwon, 2018; McNamara et al., 2022). This approach has received criticism as it may overemphasize the medical dimensions of disability, while underemphasizing the personal, social, and contextual factors that create barriers to participation across life domains (e.g., work, education, and recreation; McNamara et al., 2021). This imbalance can lead to the further stigmatization of disabled persons and limit professional preparation to confront systematic environmental and sociocultural barriers within physical activity and fitness programming. Moreover, the content themes that were observed least (e.g., attitudes, behavior, legal issues) are areas of content knowledge and skillsets frequently noted by physical educators, fitness professionals, and disabled persons as lacking in pre-service training programs and among practicing professionals (e.g., Healy et al., 2016; Wilson et al., 2020).

Disability Frameworks

Our findings offer new details of how disability is defined in APA/E course descriptions. Approximately one-third of the descriptions used only person-first and/or identity-first language in alignment with direct language models advocated for by some disability communities (Andrews et al., 2022). Of concern, the language used in the remaining course descriptions does not directly name disability, conflicting with contemporary disability discourse. About one-fourth used euphemistic language that does not directly name disability, including "special needs" and "exceptional," that disability advocates deem ineffective and likely to become disability slurs (Gernsbacher et al., 2016). Almost one-fifth of course descriptions used outdated language, including terms deemed offensive or rude. For example, as listed in the online course catalogs, sample courses were described to include content regarding disabled persons using all words listed as examples of "offensive" and "ableist" language in the coding scheme (Table 2).

The use of offensive and outdated language is problematic for reasons continually expressed within the literature and beyond academia (e.g., Bottema-Beutel et al., 2021; *Rosa's Law*, 2010). This language is also disheartening when considering course descriptions are outward facing, publicly accessible representations of APA/E courses and values. Using derogatory and offensive language can negatively influence prospective students, promote distrust from disabled persons who voice disapproval of such language, and largely misrepresent the values and mission of APA/E as an academic and professional field. Future research is needed to investigate the extent of this impact from the perspective of students with and without disabilities. In the meantime, course descriptions should be audited for offensive language and, ideally, regularly updated to align with direct, preferred, and evolving disability terminology. To support this effort, we offer examples of course descriptions, scored for varying disability model orientations and language that directly names disability, that may serve as templates (see Table 6). We acknowledge that faculty and disability services officers may be constrained by university policies, schedules, formats, or word counts when developing or contributing to course descriptions. Regardless, we hope the example templates offer support in this process.

Course Benefits

This study examined the representation of student benefits and the integration of experiential opportunities in the course as reflected in its description. APA/E scholars assert that hands-on experiential course components, especially practicum and field experiences, are essential for course effectiveness and key to student learning (Hutzler et al., 2019). For example, participation in experiential course components has been linked to improvements in favorable attitudes toward disabled people (Case et al., 2020), self-efficacy beliefs among pre-service educators (Taliaferro et al., 2015), and the likelihood of working with disabled people in the future (Shields & Taylor, 2014). Unfortunately, less than half of the course descriptions explicitly mentioned an experiential component. It is possible that some courses include an experience that was simply left out of the description or requires enrollment in a separate course. If accurate, however, the absence of experiential opportunities in much of the sample may suggest the possibility that a large cohort of pre-service kinesiology professionals are not receiving direct experiential training with disabled persons.

Researchers have also reported that students may perceive a course to be important to their learning or professional training based on the course description, particularly if possible benefits of taking the course are clearly indicated in the description (Lancelloti & Thomas, 2009). The majority of APA/E course descriptions only presented content (e.g., "Program

Table 6

Sample Descriptions with Direct Disability Language and Varied Model Orientations

Orientation	Sample Course Description with Direct Language
Medical model	Kinesiology majors learn to teach physical activity to persons with disabilities. Discussed are the etiology characteristics and best teaching practices (i.e., inclusion) for persons with mental, learning physical, emotional, sensory, health, and/or multiple disabilities
Social model	Provides awareness and understanding of the individual differences among individuals with disabilities. Pedagogical skills and adapting instruction to meet the needs of all individuals in physical education is a primary focus. Assessment, individualized educational planning, delivery of services, developmental and prescriptive teaching and advocacy for individuals with disabilities are content areas. Students are required to participate in work experience
Both medical and social models	The study of disabilities encountered in clinical and educational settings, including description, etiology, and characteristics of a variety of physical and cognitive disabilities. In addition, this course is designed to broaden awareness of disability beyond traditional cultural attitudes and norms, emphasizing a social-political definition of disability

needs of individuals with disabilities in physical education and physical activity settings"), without referencing potential benefits to students who take the course. Benefits detailed within sample descriptions focused on the potential for gaining knowledge and skills from the class, including the preparation of students to "provide safe, appropriate, and individualized accommodations" and "meet the professional and legal mandates pertaining to general physical education." Notably, benefits identified in course descriptions were not confirmed through this study, and instead may represent views or biases of individuals who wrote the course description. In fact, some of the benefits identified in the course descriptions used ableist language and highlighted the provision of services to disabled individuals as beneficial for prospective students. Moving forward, faculty should aim to integrate the benefits of APA/E courses into their course descriptions, while critically considering how best to frame potential benefits of taking the course. Writers of course descriptions should avoid presenting course benefits in a way that perpetuates the notion that disabled people are in need of service, and instead convey the potential knowledge, awareness, and skills that students may gain for improving their own ability to create inclusive and accessible spaces. Highlighting the development of specific skills needed to improve meaningful inclusion and confront barriers in the professional field (e.g., creation of appropriate modifications and collaboration; Haegele et al., 2021) may be especially powerful toward bringing in students who have an interest in building capacity for accessible programming in their future careers.

To display the relevance of course descriptions as attractors to APA/E content and the potential cascading impacts of highlighting course benefits, we conclude this section with a summary of personal communication (November 10, 2022) between the first author and Kasia Givenrod, MS:

> Kasia is a well-known Adapted Physical Education specialist in California and was selected to be the Keynote Speaker at the 2022 National Adapted Physical Education Conference. Kasia's keynote lecture began by emphasizing the many "bridges" that she crossed since childhood that supported her in becoming an accomplished APE teacher. One example was Kasia's discussion of how she selected elective course credits in her final year of college as an undergraduate Psychology major. She spoke of reviewing the course catalog, flipping through countless pages of course titles and descriptions. Upon finding the Introduction to Adapted Physical Education entry, she perceived it as a beneficial and interesting course and decided to enroll in the course. Unbeknownst to her, the course experience would influence her to change her career path, leading her to attend

graduate school in pursuit of an APE specialization. Moving forward to present day, Kasia has received numerous recognitions, including SHAPE America's 2022 Western District APE Teacher of the Year award, for her dedication to teaching disabled students (Givenrod, 2022).

The previous anecdote showcases a genuine example of the goal of course descriptions and the possibility of recruiting motivated professionals to the field. In recent years, concerns regarding personnel shortages within school districts and low student enrollment in teacher education programs, including APA/E, have demanded creative solutions for student recruitment (Haegele et al., 2020, 2021; Jung et al., 2022; Zhang, 2011). All opportunities to market courses, including through strategically written course descriptions, should therefore be capitalized on.

Limitations

This content analysis provides new information regarding course descriptions on a large scale, and findings should be discussed with consideration for study limitations. First, course descriptions were extracted from course catalogs with varying publication years. While different results are possible with all data extracted from the same year, we chose to represent the most-current data by including descriptions published within three academic years (i.e., 2018-2021) and using each course's most recent available version. As with other content analyses, our discussions and interpretations were limited to the codebook developed for this study. Therefore, potential differences in how content, disability frameworks (especially language), and course benefits are defined and categorized may not be captured by the codes selected for this study. In addition, because the scope of our content analysis is specific to APA/E course descriptions, our study does not reflect how disability may be presented in other kinesiology courses, such as Exercise for Special Populations. Our research questions were specific to APA/E; therefore, a focus on those courses was most appropriate. Follow-up studies may supplement our results by expanding the inclusion criteria to all disability-related courses or other subdisciplines. This supplement aligns well with "integration models" of higher education that advocate for stranding disability content across the curriculum (Braga et al., 2018).

In addition, the potential constraints of course descriptions must be discussed. First, some universities may have policies that restrict faculty from freely updating their course descriptions, including through standardized formats and word limits. It may also be possible that course descriptions are not seen as valuable, and therefore are not regularly audited. We were not able to discern which course descriptions were thoughtfully crafted or written without restrictions, and thus, our complete understanding of course descriptions may be limited. Similarly, the capacity for course descriptions to serve as a complete reflection of curriculum must be acknowledged. Publicly available course descriptions may be outdated or may not match current versions included on syllabi. It is possible that course descriptions reference content that is not taught in class, just as it is likely that some course content is not stated in the description. Our results depicting content should therefore be interpreted carefully. Specifically, course descriptions should be a preview of course content to prospective students and the public, but not necessarily representative of all content covered. Nonetheless, the commonalities and differences in content across the sample are important to reflect on as we make decisions about what topics should be previewed in course descriptions. When thinking of course descriptions as a direct window into course curricula, for example, there are evident gaps in the content (e.g., behavior, social model) that is currently recommended by APA/E scholars (e.g., increased skill building in creating accessible learning environments, multidimensional views of disability). Efforts to ensure courses incorporate specific topics are therefore warranted.

Recommendations for Universities and Course Instructors

Course instructors and academic departments hold the primary responsibility for updating course descriptions and ensuring course materials use respectful terminology. Disability services offices can be essential resources for inclusive instruction and can contribute to the design of course descriptions and the accessibility of other course materials, including the syllabi and learning objectives. We recommend increasing dialogue with and consulting disability service offices when revising or developing course descriptions for disability-related courses. Departments and course instructors should increase this dialogue and consult with disability offices, regardless of known presence of disabled students within their classes, to ensure inclusive language. Supportive faculty members, especially those in disability-related fields such as APA/E, should partner with and advocate for disability services offices to build connections between students, providers, and departments (Lombardi et al., 2018). Consultation with disabled students on how disability is represented within course descriptions is an important next step. Such collaborations, like surveying students registered

with campus disability services about how universities can better support disabled students (Fleming et al., 2017), have previously elicited valuable perspectives and may support diversity, equity, and inclusion initiatives at the broader university level.

Based on our findings and existing literature, we recommend that course descriptions (a) include comprehensive depictions of course content that align with known training needs, (b) use respectful disability language that reflects views and preferences among disabled groups, and (c) promote the benefits of enrolling in the course to prospective students. Notably, based on our coding scheme, none of the 599 course descriptions in our national sample directly met all three of these criteria. We have therefore modified existing descriptions to provide disability services officers with examples and to guide faculty in updating their own course descriptions in alignment with our recommendations (see Table 7).

Recommendations for Disability Services Offices and Educators

Disability services offices may be key contributors to the auditing and development of course descriptions by faculty. As "the outward-facing voice" of disability services offices (Banerjee et al., 2020, p. 305), disability services websites often include various resources for accommodations, disabled students' rights and responsibilities, and protocols for reporting or documenting disability. Websites serve as a resource for faculty by providing important guidelines and inclusive instructional strategies (Banerjee et al., 2020). Disability services offices may expand resources for academic units to include examples of contemporary and preferred language when generating course materials, including course descriptions and syllabi. They may also provide students and faculty with mediums for reporting offensive and outdated terminology within course descriptions or academic materials for the goal of creating updates.

As a potential mechanism for updating language within course materials, disability services educators may incorporate information on disability language trends and preferences among disability groups into existing disability-related trainings and professional development across campus. Disability services offices may also build new or foster existing partnerships with campus-based organizations that focus on instruction and faculty training, such as faculty development offices, centers for teaching and learning, and new faculty mentoring programs, to infuse disability-related resources on inclusive language within course descriptions and other course materials (Lombardi et al., 2018). Although the scope of this study was specific to course descriptions in APA/E, the contents of this paper may serve as a resource or example for confronting problematic language published in course materials and by academic units more broadly (e.g., program websites).

Table 7

Example Course Descriptions to Serve as References for Revisions

Meets Recommendations	This course will provide students with the knowledge and skills necessary to effectively teach, support, and design programming for physical activity for persons with disabilities. Students will learn important disability characteristics, definitions, functions, and behaviors; theories, and techniques for adapting physical activities, equipment, and environments in inclusive and alternative settings; historical, legal, and contemporary trends and issues related to programming adapted physical activity and education; and specific safety considerations. Students will gain 10-hours of direct, hands-on experiences working with children with disabilities and applying course content throughout the course
Does Not Meet Recommendations	This course is an introduction to disability and adapted physical activity across school and clinical settings. Lab included

Note. Examples have been slightly modified from existing course descriptions to match our recommendations and do not represent any course or university.

Future research

Much remains unknown about the potential influence of course descriptions on variables like student enrollment and disabled students' perceptions of belonging within academic units. Future research is needed to assess this impact and understand the contribution of catalog content toward the development of culturally responsive professionals. At present, researchers have recognized course descriptions as "the most common form of course content" that prospective students use when deciding to enroll in courses (Mourey et al., 2022, p. 100). It is, therefore, essential that course descriptions are acknowledged as critical to recruiting within the field and serve as updated, accurate representations of the course. New discussions are also needed, including answering questions like (a) to what extent do course descriptions reflect course delivery and syllabi? and (b) what impact do course descriptions have on course enrollment or interest in the field? Answers to these questions may inform what should be prioritized in course descriptions when university-specific restrictions exist (e.g., limited word count, uniformity, scheduled updates).

Course descriptions serve as a tool for students in selecting their courses and require revision across APA/E courses and potentially other academic disciplines. A course description may be a prospective student's deciding factor for enrolling in a course or turning away from the major altogether. The use of outdated, offensive disability language, and the lack of course benefits, may indicate that course descriptions have not been viewed as influential or that regular revision is not prioritized. We encourage higher education faculty, departments, and administrators to inspect their own course descriptions for content, disability language, and benefits, consult with disability services offices, and make necessary revisions to course descriptions. We offer an example course description to support faculty with this task. Efforts to further delineate and guide how disability discourse can be meaningfully included not only in course descriptions, but also within materials across kinesiology curricula are warranted.

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Exploring Socially-Just Disability Resources as a Professional Paradigm for Higher Education

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Abstract

The purpose of this study was to explore an emergent professional paradigm in higher education disability resources–socially-just disability resources–as a potential means to enhancing access and equity in the experiences of students with disabilities. Because this is a novel framework of practice, we facilitated an appreciative inquiry initiative within a case study of one higher education disability resource center. Findings from the appreciative inquiry included the "positive core" of the disability resource center's implementation of socially-just disability resources, or the best of current practices in alignment with the paradigm's theoretical underpinnings. After an overview of the components of the positive core, implications for higher education disability resource professionals will be presented.

Keywords: disability resources, socially-just disability resources, disability, higher education

In institutions of higher education, disability resource professionals (DRPs) are responsible for ensuring that students with disabilities experience equal access to curricular and cocurricular environments (Association on Higher Education and Disability [AHEAD], n.d.). Although methods for facilitating access may vary, many DRPs adhere to a compliance-focused approach that emphasizes upholding the mandates of disability-related civil rights legislation (Evans et al., 2017; Oslund, 2014). Specifically, the Americans with Disabilities Act (2008) and Section 504 of the Rehabilitation Act (1973) collectively hinge access on the development of *reasonable accommodations*, or modifications to an activity or program that allow for equal participation among people with disabilities. (Note that we use person-first and identity-first language interchangeably to honor the varied preferences of the disability community).

As a result, DRPs who operate from a framework of compliance primarily collaborate with students to identify reasonable accommodations that mitigate disability-related barriers in higher education settings; in other words, "factors in a person's environment that, through their absence or presence, limit functioning and create a disability" (World Health Organization, 2001, p. 214). Although a compliance-focused approach meets the mandates of federal legislation, higher education researchers have criticized this approach for being *reactive* instead of *proactive* in ensuring access for college students with disabilities (Cory et al., 2010; Kraus, 2021; Oslund, 2014). Further, as noted by Kraus (2021), focusing on compliance alone may cause DRPs to fall short in addressing systemic social, attitudinal, and procedural barriers to access that fall outside of the accommodations mandated by law (Centers for Disease Control and Prevention, 2020).

The negative impact of a compliance-focused approach to higher education disability resources is particularly evident in research elevating disabled college students' experiences. For example, disabled students indicate that because accommodations are often determined based on a student's disability type, as opposed to a holistic assessment of contextual barriers in students' classroom environments, the accommodations provided to them are ill-suited and ineffective (Cawthon & Cole, 2010; Smith et al., 2019; Toutain, 2019). Moreover, in addition to experiencing difficultly securing accommodations that meaningfully address their needs, disabled students report fearing negative reactions and attitudinal barriers from faculty when sharing their accessibility documentation

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(e.g., an accommodation letter; Griffiths, 2012; Kurth & Mellard, 2006; Toutain, 2019).

For these reasons, perspectives on the scope of DRPs' roles have expanded beyond matters of compliance to preemptively identifying and addressing systemic barriers in addition to providing individualized, reasonable accommodations to ensure equitable higher education opportunities to students with disabilities (Guzman & Balcazar, 2010; Kroeger & Kraus, 2017; Thornton & Downs, 2010). In other words, approaching access through a lens of compliance does not provide DRPs with the tools necessary to ensure that disabled students have accessible educational experiences that lead to program retention and degree completion. As such, it may be necessary for DRPs to reframe their approach to disability resources to proactively identify and examine barriers to access in higher education settings and consider the extent to which they can be removed (Guzman & Balcazar, 2010; Loewen & Pollard, 2010). This expanded scope of DRPs' roles reflects an emergent paradigm—socially-just disability resources—that has the potential to enhance access and outcomes for students with disabilities, warranting an investigation into its effectiveness.

Socially-Just Disability Resources

Socially-just disability resources (SJDR), as a framework for practice, is a lens through which DRPs can determine means of going beyond compliance in their roles to influence institutional perceptions of disability inclusion to facilitate more proactive, inclusive design (Evans et al., 2017; Kraus, 2021; Loewen & Pollard, 2010). Specifically, through SJDR, DRPs and their campus partners are encouraged to harness tangible strategies for creating a future in higher education where disability is not something to be accommodated reactively but proactively planned for (Davis, 2005; Dolmage, 2017; Oslund, 2014). Overall, the "ideal" in higher education settings through a lens of SJDR would entail identifying and eliminating barriers to access in colleges and universities as well as their tangential environments (e.g., clinical field placements) to the greatest extent possible (Kraus & Dehollander, 2013), reducing the need for DRPs and accommodation altogether (Kroeger & Kraus, 2017).

To achieve this "ideal" for student with disabilities, leading scholars in SJDR (e.g., Evans et al., 2017; Kraus, 2021; Loewen & Pollard, 2010) provided several essential dispositions necessary for DRPs in adopting and implementing this framework. Foundational to SJDR, for example, is an understanding of *ableism* (devaluing people because they are disabled; Ladau, 2021) and its impact on disabled students both in past and present day, particularly as it relates to the barriers we commonly address through accommodations (Kraus, 2021). Similarly, Loewen and Pollard (2010) emphasized the need for DRPs to understand how power and privilege play a role in the extent to which disabled students experience access to higher education settings, and how intersectional identities (e.g., race and gender expression) can further influence access. Lastly, Evans and colleagues (2017) emphasized the importance of maintaining *equity* as a desired goal in pursuit of SJDR; from their perspective, equity would entail students' experiencing liberation, justice, interdependence, and respect in all aspects of the higher education experience.

In alignment with these dispositions, leading SJDR scholars identified particular domains of practice through which DRPs can implement SJDR. These domains for example, include (a) proactively identifying and removing all types of barriers to access as opposed to only accommodating them, (b) representing disability as an identity and aspect of diversity, (c) engaging in continual faculty and staff outreach and education on inclusive design, and (d) facilitating an equitable accommodations process. While the work of these authors is essential in providing the foundations of SJDR, there remains a gap in understanding the SJDR framework and its impact on disabled student outcomes in college and university settings; foundational texts (e.g., Evans et al., 2017; Kraus, 2021; Loewen & Pollard, 2010) related to SJDR to date are theoretically based and conceptual (i.e., non-empirical).

The purpose of this study, therefore, was to understand effective practices in the SJDR framework in higher education disability resources as they relate to collaborations with faculty and staff with regard to facilitating access for students with disabilities. The following questions guided this research:

1. What are perceived effective practices in SJDR?
2. How are SJDR-informed practices implemented?

Method

To answer each research question, we conducted a qualitative case study to understand effective practices in SJDR within one higher education disability resource center (DRC). For this case study, we facilitated an appreciative inquiry initiative to explore the "best" of SJDR (Whitney & Trosten-Bloom, 2003). Through these blended methods, we sought to "appreciate the uniqueness and complexity" of a single case (the DRC) to understand the implementation of SJDR

better and, consequently, refine it as a framework of practice (Stake, 1995, p. 16). This paper reports on the findings from the first two steps of appreciative inquiry: Step 1: Definition and Step 2: Discovery. Findings from the final three steps are reported in a separate paper (citation omitted).

Researcher Positionality

At the time of this research, the first author was a doctoral candidate researching higher education disability resources. Of importance to this study, the first author also identified as a former DRP and a student with invisible disabilities. The second author is a special education faculty member who researches young adults with disabilities and family support systems and has experience conducting appreciative inquiry research. Further, we are both critical constructivists, leading us to situate research in terms of power and privilege and understand truth as context-dependent (Baxter & Jack, 2008). As a result, we engaged in reflexivity (i.e., critical self-reflection) during the research process to understand the influence of our identities and experiences through memoing and peer debriefing (Merriam & Tisdell, 2016).

The Appreciative Inquiry Process

In contrast to problem-solving approaches to systems change, appreciative inquiry is an unequivocally positive framework used to shift organizational practices (Whitney & Trosten-Bloom, 2003). Specifically, appreciative inquiry brings unlikely partners in an organization and relevant stakeholders together to discover its *positive core* (i.e., "best") relative to a selected policy, practice, or procedure (Whitney & Trosten-Bloom, 2003). To accomplish this, appreciative inquiry initiatives occur in five steps: definition, discovery, dream, design, and destiny. See Table 1 for activities involved in Steps 1 and 2.

As depicted in Table 1, each step of appreciative inquiry involves multiple activities that cumulatively foster positive organizational change. Appreciative interviews conducted in Step 1: Discovery are the heart of an appreciative inquiry initiative and lead participants to deeply discuss the organization at its "best" (Cooperrider & Whitney, 2005). Within these peer-to-peer interviews, participants ask one another questions that are affirmative and designed to uncover positive experiences and practices within the organization that form its positive core (Whitney & Trosten-Bloom, 2003). Following interviews, activities generally cycle through large and small group discussions and visual concept mapping to facilitate a collaborative process of dreaming and designing the organization's future in subsequent steps (Watkins et al., 2011).

Participants

After receiving IRB approval, we recruited one DRC for this case study to explore SJDR deeply through an appreciative inquiry initiative (Creswell, 2002; Stake, 1995). Through purposeful selection, we ensured that the DRC "fit the purpose of the study, the resources available, the questions being asked, and the constraints being faced" (Patton, 2002, p. 242). Because researchers construct a specific reality through their participant selection (Reybold et al., 2013), it is important to note that the first author identified the DRC opportunistically through a pre-existing professional relationship (Labaree, 2002). For this reason, the first author understood their complex position as an insider who could claim a certain extent of prior knowledge of the organization (Leigh, 2013). As a result of the existing relationship, however, the selection of this case allowed us to maximize learning through proximal access and in-person data collection (Stake, 1995). The DRC was housed at a large public institution in the Mid-Atlantic region of the United States. The institution's total enrollment averaged approximately 39,000 students between 2019 and 2022. Of these 39,000 students, approximately 3,000 (7.7%) students with disabilities were registered with the DRC to receive accommodations at the time of this research. Most students reported their primary disability as psychological/emotional, ADD/ADHD, or medical, although almost half indicated having more than one disability. The total number of staff members was 14, and the staff had a diverse range of expertise and leadership roles.

In an appreciative inquiry, there are three key participant roles: (1) advisory team members, (2) internal organization stakeholders (i.e., members of the organization), and (3) external stakeholders (i.e., those who collaborate or partner with the organization). To recruit participants for the advisory team and internal organization stakeholder roles, the first author contacted the DRC director via email to explain the study's purpose and procedures. Once the director agreed to participate, the first author asked for their input on whom to recruit for an internal advisory team to help develop and facilitate the appreciative inquiry. The first author then contacted and met with the director's recommended staff member to explain the study's procedures and consent information. Once the first advisory team member agreed to participate, the first author asked them to recommend a second advisory team member, with whom they then met to explain the study's procedures and consent information. Both advisory team members consented to participate in this study. To recruit internal organization stakeholders, the first author then provided the DRC director with

Table 1

Steps 1 and 2 of The Appreciative Inquiry Process

Step	Purpose	Activities
Step 1: Definition	To set goals and objectives for the appreciative inquiry and prepare the organization for the upcoming initiative	• Selecting a topic of focus • Forming an internal advisory team • Determining whom to involve in the inquiry • Introducing appreciative inquiry to the organization
Step 2: Discovery	To collectively uncover the organization's positive core (i.e., 'best') relative to a specific topic	• Providing an overview of the topic of focus • Conducting peer-to-peer appreciative interviews • Making meaning of appreciative interview findings (i.e., themes) • Drawing themes to visually map the organization's positive core

Note. Content adapted from Whitney and Trosten-Bloom (2003).

Table 2

Participant Information

Pseudonym	Role in Appreciative Inquiry	Title	Years in Professional Role
Dominique	Internal Advisory Team	Associate Director	3
Lucky	Internal Advisory Team	Access Consultant	1
Ann	Internal DRC Participant	Director	6.5
Jessica	Internal DRC Participant	Associate Director	2
Robin	Internal DRC Participant	Access Consultant	5
Jamie	External Special Education Faculty Participant	Assistant Professor of Special Education	6
Juliet	External Special Education Faculty Participant	Associate Professor of Special Education and Academic Program Coordinator: Autism Spectrum Disorder & General Curriculum Special Education Programs	14

an email to share with their staff members that explained the study's purpose, procedures, and consent information, and gave directives to contact the first author if they were interested in participating.

For external stakeholders, the first author used purposeful sampling methods to recruit faculty members from the institution (Merriam & Tisdell, 2016) who met the inclusion criteria for this research (i.e., at least one to two years of experience with the DRC). After obtaining the DRC director's input on who would meet this criterion, the first author emailed a recruitment message to three faculty members that included a description of the study and a directive to contact them if they were interested in participating. Of the three faculty members interested in participating, all had experience with the DRC (i.e., at least 1-2 years), and two were available for the study and provided consent to participate.

We also employed snowball sampling methods by asking the faculty members to recommend disabled students to participate in this study. The DRC Director then shared a pre-written recruitment message with the students that included a description of the study and the first author's contact information. We offered a $25 incentive to students for their participation in this research. Of the students contacted via email, one expressed interest in participating, however, they did not volunteer to participate in the study. Thus, no students participated in this study. We asked all participants to create pseudonyms and select a title to reflect their current professional role. See Table 2 for full participant information.

Data Collection

We collected data from several sources during Steps 1 and 2 of the appreciative inquiry initiative. This section describes the processes we used to engage participants in Step 1: Definition and Step 2: Discovery, including data collection methods.

Step 1: Definition

Step 1: Definition occurred during the fall 2022 semester. First, the first author met with the DRC director to define the appreciative inquiry initiative's focus (SJDR). Second, once the advisory team was formed, the first author met with them three times over three months to (a) provide an overview of the study, (b) introduce appreciative inquiry and SJDR, (c) discuss their roles, and (d) develop all materials needed for the appreciative inquiry. Third, one week before the initiative, we contacted all appreciative inquiry participants via a welcome email that included a reminder of the study's procedures, a copy of the peer-to-peer interview protocol (if they wanted to prepare responses in advance), and a directive to contact the first author with any questions or concerns. Fourth, the first author piloted the appreciative interview protocol with a faculty member and then revised it accordingly (e.g., removed one redundant question).

Step 2: Discovery

Step 2: Discovery occurred in-person over three hours on the DRC's campus. All participants gathered in a large meeting room. We selected the space intentionally; none of the participants' offices were housed in its building, bringing them to a neutral location away from their workspace to unplug from day-to-day responsibilities. Before participants arrived, we organized the room into two sections: one for peer-to-peer interviews and whole-group discussions to occur, and one for small-group discussions. Step 2: Discovery involved four activities: (a) agenda review, (b) peer-to-peer interviews on the DRC and SJDR, (c) small group poster development, and (d) large group positive core development. For Activity 1: Agenda Review, we welcomed all participants, reviewed the agenda for the day, and provided a brief reminder of the goals of the appreciative inquiry initiative and SJDR as a framework for practice.

For Activity 2: Peer-to-Peer Interviews, participants engaged in interviews using a protocol developed in collaboration with the advisory team during Step 1: Definition. The protocol included five questions about the DRC and its current work concerning SJDR (e.g., "How would you describe them at their best?"). To support the peer-to-peer interviews, we provided participants with a note-taking template that included interview questions and space for notetaking. Following the interviews, participants returned the notes they took to each other and were invited to review and edit their responses. These interview notes served as the basis for the small group discussion in the third activity.

For Activity 3: Small Group Poster Development, participants moved into two small groups located on each side of the room. Participants began Activity 3 by debriefing their responses to each interview question. Once small groups finished debriefing their interview responses, we drew their attention to six posters on the walls nearest them, labeled with five core domains of the function of DRCs (including definitions of each domain) that the advisory team and first author developed, as well as an "other" poster to capture additional ideas outside of the five domains. The five domains included (a) working with students (e.g., accommodation development, general support, advocacy), (b) working with faculty and staff, (c) working with families, communities, and

healthcare providers, (d) campus outreach, and (d) physical space. We instructed participants to record what they understood to be the root causes of success within the DRC (e.g., practices, policies, procedures) on each of the posters by writing their ideas on sticky notes and placing them on the corresponding poster (Whitney & Trosten-Bloom, 2003).

For Activity 4: Large Group Positive Core Development, we drew a large concept map on a large whiteboard at the front of the room with "DRC at [Institution]" at the center, with the five core domains of functioning and "other" branching out. During a brief participant break, the second author captured key themes from each group's posters on data collection pages that they provided the first author with, and the first author added them to the positive core concept map for each domain. We then facilitated a large group discussion on the positive core concept map. As we reviewed each domain, the first author asked for feedback ("Does this reflect what you intended?" "What did you mean by 'flexibility?'") while the second author recorded field notes. During this discussion, we added new information to the concept map (new words, short definitions). Once the positive core concept map was finalized, we explained that this map represented this DRC's "best" regarding SJDR to guide future phases of appreciative inquiry.

Data Analysis

As noted by Baxter and Jack (2008), data collection and analysis are concurrent in qualitative research. As such, we iteratively reflected on data as the study took place to develop initial findings. Specifically, we engaged in a basic thematic analysis of (a) researcher notes and memos, (b) peer-to-peer interview notes, (c) raw data provided via sticky notes from the five domain posters, and (d) the positive core concept map. The five domains of a DRC's functioning served as a priori themes for analysis. The positive core concept map development served as the initial phase of analysis, as participants identified and agreed upon the DRC's root causes of success before the study concluded. Once the study concluded, we continued to engage in thematic analysis with the concept map by clustering similar words and phrases to create subthemes (Merriam & Tisdell, 2016). During this time, we engaged in conversations, referring to interview data and field notes, about the nature of terms and phrases to ensure we analyzed them in the way participants intended them. While analyzing themes, we agreed that the content on the "other" poster fell into the five a priori themes.

Trustworthiness

We employed several methods to ensure trustworthiness in this research. First, we engaged in member-checking with participants throughout the appreciative inquiry to ensure the accuracy of their interpretations (e.g., inviting feedback on the positive core concept map). Member-checking also occurred after the study's conclusion, as we provided the DRC participants with this study's final products (i.e., manuscript drafts) before moving forward with publication, inviting edits, revisions, and redactions (Stake, 1995). Second, we triangulated findings through multiple sources (methodological triangulation) and researchers (investigator triangulation; Stake, 1995). Third, we maintained an audit trail to document all decisions related to design, data collection, and analysis. Fourth, because it is imperative to understand how positionality influences research, we engaged in continual reflexivity during data analysis to maintain an understanding of how we may have influenced the research process.

Findings

This section will detail the findings from the appreciative inquiry initiative and themes drawn from the thematic analysis to encompass the best of SJDR within this DRC. Pseudonyms are used throughout to protect the identities of the institution, the DRC, and the participants. By the end of Step 1: Discovery, participants created the DRC's positive core, including practices within the following themes: (a) working with students; (b) working with faculty and staff; (c) working with families, community, and healthcare providers; (d) campus outreach; and (e) physical space of the DRC (see Figure 1).

Working with Students

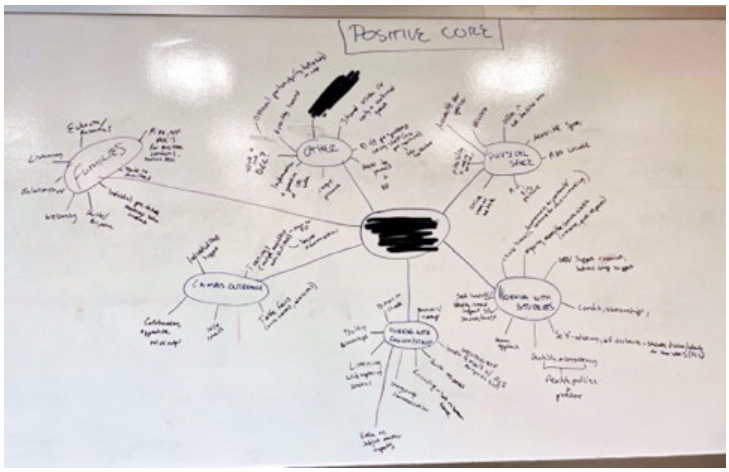
When discussing components of the DRC's positive core relative to working with students, participants identified practices within the following subthemes: (a) communication, (b) information and support, and (c) internal collaboration (see Figure 2).

Communication

Participants described the DRC's communication with students as "ongoing" and "accessible." In small group discussions, Ann, the DRC Director, credited the DRC's large staff size to her team's ability to maintain a strong line of communication with students (e.g., "quick responses"). Lucky, an Access Consultant, echoed this sentiment by noting that the DRC staff members are "always accessible" and "able to communicate with students." Jamie, an Assistant Professor

Figure 1

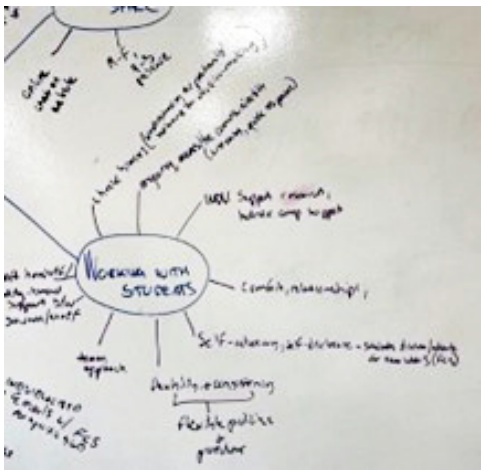
The DRC's Positive Core



Note. Some information is redacted to protect the identity of the DRC.

Figure 2

Working with Students



Note. Some information is redacted to protect the identity of the DRC.

of Special Education, agreed that the DRC staff are communicative and expressed that from her perspective, the DRC is consistently in touch with disabled teacher candidates and responsive to their queries. Participants also agreed that the DRC staff's communication with students extended to their ability to "listen," which helped to foster "good relationships."

Information and Support

Participants discussed the DRC's provision of information and support (e.g., resources, accommodation-related support) to students with disabilities at length throughout the appreciative inquiry initiative. Specifically, participants felt that the DRC staff are effective in providing "individualized support;" as Ann noted, the DRC staff are generally "flexible" and change their approach to student support to adapt to individual student needs. Participants also commended the DRC's practice of completing "soft hand-offs" between students and other university faculty or staff members, or directing students to specific faculty or staff whom they feel could provide additional re-

sources to students and facilitate their introduction (e.g., via email).

DRC and faculty participants also agreed that the DRC's individualized student support extended to developing programs for students with specific disability-based identities that provide "holistic support" beyond standard accommodations and create inclusive communities. For example, Juliet, an Associate Professor of Special Education and Academic Program Coordinator, noted that the DRC's identity-based programs are strong and "responsive to student needs." During the whole group discussion, Juliet elaborated on this point to emphasize that while the DRC successfully individualizes its approach to student support, staff members also emphasize the importance of developing student self-advocacy. Specifically, Juliet expressed her appreciation for the DRC staff in empowering students to determine how they disclose their disability/ies to faculty, as students at Gladstone are responsible for providing faculty with their accommodation approval letters.

Internal Collaboration

The DRC participants provided insight into the positive practices related to collaborating internally that allow them to provide "student-focused" and "comprehensive" support. Ann, for example, described the DRC staff as "generalists" (i.e., maintaining several areas of expertise) who come together during regular meetings with one another each week to work through current situations or issues. Other DRC staff members expressed their appreciation for their structured meeting times, explaining that it fosters "strong communication and collaboration," allows them to "consult" and "connect" with one another, and leverages staff members' individual "expertise" in varied situations. When describing the DRC's team dynamic during these meetings, Robin, an Access Consultant, summed up the sentiment of many others: "[the DRC team] keeps me grounded in the 'why' [of disability resources]."

Further, DRC participants discussed the benefits of their internal collaborative structure and weekly meetings in relation to understanding the influence of positionality on their actions and decisions. As stated by Jessica, an Associate Director, the DRC team is "diverse" (e.g., staff has "different lenses," "view things differently") and, consequently, may approach accommodations or student support in varied ways. For that reason, participants felt that internal collaboration allowed them to keep their "biases in check" as they engaged in their day-to-day duties (e.g., accommodation development). For example, participants shared that they consulted with one another when they felt that their identities, experiences, or perspectives influenced their choices and consequential impact on students.

Working with Faculty and Staff

When discussing components of the positive core relative to working with faculty and staff, such as instructional staff or student affairs professionals, participants identified practices within the following subthemes: (a) communication, (b) information and support, (c) relationships, and (d) internal collaboration (see Figure 3).

Communication

Participants consistently described the DRC's communication with faculty and staff as "ongoing" and "open." Specifically, participants highlighted the DRC staff's ability to "listen" while "evaluating concerns" expressed by faculty when they reached out for support and also validating faculty as content experts in their specific academic departments. Juliet, for example, indicated that the DRC often provides her with "support on complex" situations and answers questions about "accommodations" and "online courses" in a friendly manner. In these instances, both Juliet and Jamie agreed that the DRC staff members are "very helpful" and provide "quick responses" to ensure that accommodations are implemented appropriately in teacher preparation settings. Further, Juliet and Jamie agreed that they appreciated the DRC's efforts to provide them and other faculty members with introduction emails when preparing to support students together.

Information and Support

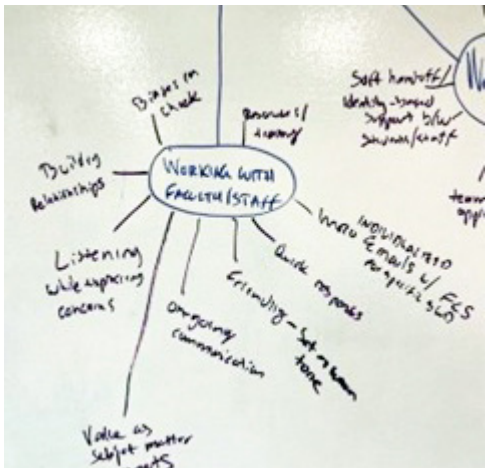
In addition, the faculty members noted that the DRC gives "support" to faculty "beyond" accommodation implementation to include "training," workshops, and other means of education related to disability access and inclusion (e.g., "faculty resources"). Jamie, for example, shared that she previously attended one of the DRC's workshops on proactively creating accessible experiences for students with visual impairments. Although Juliet had not attended a training or workshop of this nature, she expressed an eagerness to participate in the future and appreciated this effort from DRC staff members to facilitate these opportunities.

Relationships

Dominique, among other DRC participants, described efforts to provide information and support to faculty and staff as "foundational" to "build[ing] relationships" with them and advancing work related to disability equity and inclusion beyond access at Gladstone. Specifically, as noted by Robin, DRC

Figure 3

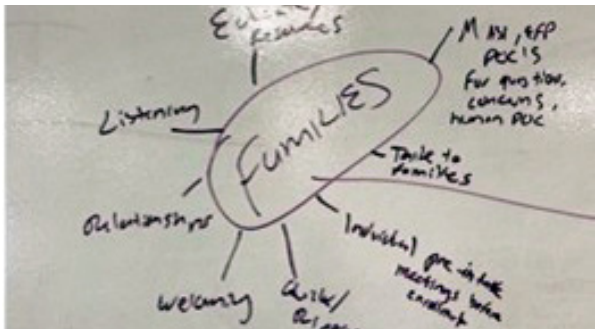
Working with Faculty and Staff



Note. Some information is redacted to protect the identity of the DRC.

Figure 4

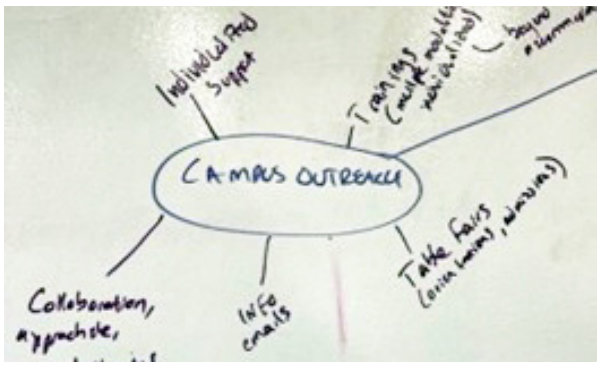
Working with Families, Community, and Healthcare Providers



Note. Some information is redacted to protect the identity of the DRC.

Figure 5

Campus Outreach



Note. Some information is redacted to protect the identity of the DRC.

staff intentionally "broaden conversations" with faculty to address topics outside of accommodation implementation once matters of compliance are addressed in their classrooms. Ann elaborated by noting that DRC staff members have done a great deal of work to build relationships not only with individual faculty but also entire departments over the years, and that it is particularly beneficial to them now as they initiate social-justice-related efforts across campus. The impact of the DRC's relationship-building among faculty participants was highlighted, as Juliet expressed her appreciation of DRC staff for "engaging with faculty" and being "open to doing research" together to make changes related to access and equity in their respective fields.

Internal Collaboration

Like discussions of the DRC's positive practices in working with students, participants described internal collaboration among DRC staff members as foundational to collaborations with faculty and staff. Broadly, participants described the DRC staff as "diverse" (i.e., "differentiated experiences"), which allows them to consult with one another and draw on collective expertise as they respond to faculty questions. Again, DRC participants felt strongly that their weekly meetings with one another created opportunities to keep their "biases in check" and engage in "reflexivity" relative to actions and decisions on faculty or staff engagements. When prompted to clarify what was meant by "reflexivity," DRC participants defined this practice as "checking [their] decisions in interactions" in relation to biases.

Working with Families, Community, and Healthcare Providers

When discussing components of the positive core relative to working with families, community, and healthcare providers, participants identified practices within the following subthemes: (a) communication, (b) information and support, and (c) relationships (see Figure 4).

Communication

Participants agreed that the DRC worked "great with outside partners," and some attributed this to staff members' ability to "listen" during their interactions. In particular, participants appreciated the DRC staff's willingness and ability to "generally talk to families" and community members, which is not always common practice in the field due to limited time and resources within DRCs. Participants also expressed that DRC staff members are consistently "welcoming" and provide "quick responses" to queries from families and community members, again emphasizing that such an approach is not always the case in other DRCs. Further, participants echoed their gratitude for the accessibility of "human" points of contact in the DRC (i.e., not a general email) for communication with family stakeholders and the friendly tone this accessibility sets.

Information and Support

Building on communication, participants discussed the DRC's positive practices in "educating" families and community members and "providing resources" to them as needed (e.g., related to transitioning to college). As noted by participants, information and support provision hinged on the DRC's ability to attend community events outside of Gladstone, such as those within high schools or at local career fairs. Robin, for example, shared that the DRC has a "good relationship" with local high schools and noted that this relationship is essential to family and community outreach. In group discussions, other DRC participants added that practices within this domain extended to stakeholders who facilitated internships for students with disabilities at Gladstone (e.g., providing educational workshops on accessibility in the workplace).

Relationships

Central to participants' discussions of working with family and community members was "building a good relationship" with them. Ann emphasized that fostering strong community and family relationships can sometimes take years and requires consistent effort on the part of the DRC. Specifically, DRC participants discussed the importance of maintaining a "welcoming" and inviting presence and creating a sense of trust, particularly among family members. For example, to develop trusting relationships with families, Jessica shared that the DRC offers opportunities for them to meet with DRC staff members before disabled students enroll at Gladstone. As she discussed this practice, other participants shared that these pre-enrollment meetings allow the DRC staff members to understand students' disability-related needs and assure the family how access will be addressed upon enrollment.

Campus Outreach

When discussing components of the positive core relative to campus outreach, participants identified practices within the following subthemes: (a) information and support, (b) relationships, and (c) culture (see Figure 5).

Information and Support

Consistent with other themes in the positive core, participants described the DRC's approach to campus outreach as "individualized" to reach as many institutional stakeholders as possible. Lucky expressed her appreciation for the DRC's ability to engage in extensive outreach; she noted, for example, that due to the DRC's staff size and diverse expertise, they can provide campus stakeholders with individualized workshop sessions in varied modalities. Moreover, participants agreed that the DRC's provision of information and support to the campus community extended "beyond accommodations" and general compliance-related matters. Specifically, Robin shared that many departments have contacted the DRC in recent months to "be a part of" the DRC's work to advance disability inclusion across all aspects of campus life and frequently request information and support, often in the form of departmental workshops, on how they can foster access and inclusion at Gladstone.

Relationships

Participants described the DRC as being "dedicated" to relationship building as the purpose and outcome of campus outreach efforts. In the context of implementing SJDR, participants agreed that "collaboration" was essential, and some underscored their recognition that relationships with campus stakeholders are "needed" to advance any SJDR-related efforts. To achieve relationships of this nature, DRC participants stressed their intent to be consistently "approachable" from the perspective of campus partners while initiating campus-wide relationships (e.g., sending informational emails to stakeholders and requesting meetings).

Culture

Participants spoke at length about the DRC's practices related to culture within campus (i.e., fostering a culture of disability inclusion at Gladstone). They discussed, for example, the DRC's general "campus presence" and the transformational moment they are presently experiencing in "moving beyond" a focus on accommodations alone and being "intentional" about proactive work to remove disability-related barriers. DRC participants took pride in this paradigm shift and felt that, as a result, "more students" than ever before are comfortable accessing the DRC's resources. Excitedly, they also emphasized that they are in the "beginning stages of moving beyond just accommodations" and have much more work to do to enhance a culture of disability inclusion at Gladstone.

Within small group conversations, Dominique stressed that in doing any culture-related work at Gladstone, DRC staff members are careful to only do so in a way that "authentically addresses" the "needs and gaps" of the institution related to disability inclusion. Further, DRC participants emphasized their focus on centering disabled community members' perspectives as they work to address these gaps. As an example, Jessica and Lucky both discussed the DRC's intent to develop a disability cultural center at Gladstone to create a space for students to connect and foster community after having obtained this feedback from Gladstone's disability community. Overall, participants expressed an appreciation for the DRC's "shared vision for equity and continued growth" and their openness to advancing disability culture.

Physical Space

When discussing components of the positive core relative to the physical space of the DRC, participants identified practices within the following subthemes: (a) information and support, (b) culture, and (c) accessibility (see Figure 6).

Information and Support

Participants primarily discussed the DRC's physical space in relation to how it facilitated staff members' ability to provide information and support to students, faculty, families, and other stakeholders. For example, many participants appreciated the consistent presence of at least one DRC staff member in their physical office location who could respond to questions or concerns in person. In addition, some participants agreed that the location of the DRC's office (furthest corner of a building) allowed for privacy in interactions that may enhance students' comfort in visiting. Conversely, others discussed the location of the DRC as it related to its presence in a well-trafficked area among other student identity offices (e.g., the LGBTQ+ office).

Culture

DRC participants described a physical space outside their main office that they agreed fostered a sense of disability culture on campus. This space, as they elaborated, is available only to students within one of the DRC's comprehensive, identity-based support programs; students must swipe into the space with their student ID cards. Participants noted that students consistently spend time together in this cultural space and feel it creates a sense of community among students with similar experiences. Unfamiliar with this cultural space until the appreciative inquiry, Juliet and Jamie excitedly asked several follow-up questions about it and ultimately agreed that this was a successful effort on the DRC's part to use physical space to enhance Gladstone's culture of disability inclusion.

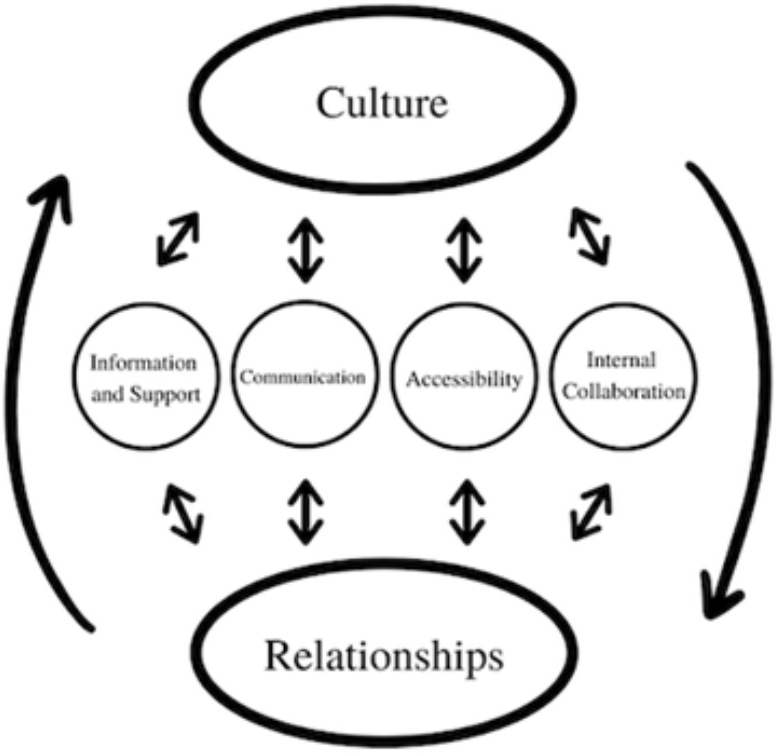
Figure 6

Physical Space

Note. Some information is redacted to protect the identity of the DRC.

Figure 7

Conceptual Model of the DRC's Positive Core relative to SJDR



Accessibility

Participants unanimously felt that the DRC's office space was accessible and flexible for visitors. The DRC's door, for example, has an accessible operator button, and the entire office space is accessible to people with animals or who are wheelchair users. Participants also noted that they are not confined to their office location for in-person meetings and have the flexibility to use other rooms in their proximity outside of the DRC office to host meetings if needed. Beyond the physical space on Gladstone's campus, participants highlighted a new accessibility feature on the DRC's website that allowed visitors to engage in a live chat with a staff member to address questions or concerns beyond the office's physical location.

Discussion

The purpose of this study was to understand effective practices in the SJDR framework in higher education disability resources as they relate to collaborations with faculty regarding facilitating access for disabled students. Overall, this study provides the first empirical exploration of SJDR and its implementation by uncovering the positive core SJDR in one DRC. For this reason, the findings provide insight as to how this framework may be built upon and implemented to address the persistent barriers to access faced by disabled students in higher education. As a key finding of this research, the components of implementing SJDR were consistent across all themes, including (a) communication, (b) information and support, (c) internal collaboration, (d) relationships, and (e) culture. Figure 7 provides a conceptual model of the DRC's positive core relative to SJDR.

As depicted in Figure 7, relationships between the DRC and faculty, students, families, and campus partners are the foundation of the DRC's positive core. "Relationships" and "culture," specifically, cut across several themes and subthemes within the positive core, making these constructs essential to all domains of functioning within SJDR. Further, it became evident through the appreciative inquiry that "relationships" bidirectionally influenced the extent to which "culture" could be advanced throughout Gladstone; in other words, relationships are essential to creating culture, and culture is essential to sustaining relationships. Determining the critical importance of relationships is consistent with previous research demonstrating that positive relationships between DRCs and faculty can enhance efforts from both parties to affect disabled students' experiences and outcomes (Scott et al., 2016). This finding also expands upon the proposed practices in SJDR from its leading scholars relative to the importance of campus outreach and means of advancing an institutional culture of disability inclusion (Kraus, 2021; Loewen and Pollard, 2010).

Figure 7 also demonstrates the bidirectional influence of communication, information and support, accessibility, and internal collaboration (informed by and contributing to positive relationships) in implementing SJDR relative to relationship-building and sustaining culture. The emphasis on communication, information and support, accessibility, and internal collaboration within the DRC's positive core provides an important insight into the key components of successful collaboration between faculty and DRCs that may foster more accessible and equitable experiences for disabled students over time. Again, this finding builds upon the conceptual basis of existing SJDR literature relative to the necessity of collaboration with others on campus to achieve successful outcomes in SJDR-related efforts (Evans et al., 2017).

As an additional finding, participants frequently drew on their shared missions of accessibility and general inclusion of individuals with disabilities in education throughout the appreciative inquiry initiative. Consequently, it may be the case that the implementation of SJDR and general collaborations between DRCs and faculty could be strengthened through the explicit identification and recognition of shared goals. This finding contributes new knowledge to how DRCs and academic departments can align their parallel objectives to foster greater collaboration and, ultimately, influence culture in higher education to the benefit of disabled students. It may be possible, for example, to draw on the critical dispositions of SJDR (e.g., the impact of ableism, disability justice) to build bridges between DRCs and other departments (Kraus, 2021; Loewen & Pollard, 2010).

Finally, all components of the DRC's positive core suggest a high degree of interdependency among institutional stakeholders regarding SJDR. Specifically, it is evident that it is not solely up to DRCs —although internal collaboration was a critical component of the positive core—to implement SJDR and foster positive change. Rather, all stakeholders are needed to accelerate the removal of disability-related barriers in higher education that negatively impact students with disabilities. As a result, this finding sheds light on the need for both top-down and bottom-up approaches to build on the work of a DRC (i.e., positive core) to make the needed changes in higher education to make SJDR-related efforts successful.

Limitations

There are three primary limitations to this research. First, we did not audio record any activities in Step 1: Definition or Step 2: Discovery. Although this choice allowed participants to feel comfortable sharing their perspectives, it limited our ability to capture exact wording for later analysis. Second, despite the benefits of opportunistically selecting the DRC, the first author's previous professional relationship with some participants may have influenced their responses and engagement with the activities; similarly, it is possible that faculty participants' responses were influenced by the presence of DRC staff members. Third, we were unable to successfully recruit disabled students to participate, limiting our current understanding of SJDR. Although challenges in recruitment were likely due to the study's timing (i.e., in-between semesters when faculty have more downtime, but students may be traveling), future research needs to disabled students' perspectives on this topic as those directly impacted by SJDR.

Implications

Despite the limitations of this research, the findings lead to several implications. First, because shared missions and visions of access and disability inclusion were central to the positive core of the DRC's implementation of SJDR, both entities should consider acknowledging and centering this in any collaborative efforts moving forward. With a collective vision, collaborations may be enhanced to effectively support students with disabilities and more adequately address barriers in higher education. Second, it should be the priority of DRC staff and faculty to build a strong, foundational relationship with one another that, as demonstrated in Figure 7, will allow all other components of SJDR to occur.

Third, to guide relationship building and identify collective goals, it may be beneficial for DRCs and academic departments or units to engage in an appreciative inquiry similar to this study. By engaging in an appreciative inquiry, DRCs and individual departments may identify their positive core of collaboration to build from and implement effective change in their work. Engaging in an appreciative inquiry may also allow DRC and faculty stakeholders to demystify the functions of each in supporting students and building a strong relationship to sustain SJDR-related efforts. In the present study, for example, participants consistently shared their gratitude for the opportunity to learn more about one another's roles. Lastly, for DRCs specifically, this study sheds light on the importance of assessing structures to support internal collaboration due to the frequency with which this was cited among participants as central to working with various stakeholders (e.g., students, faculty, and staff).

Future Research

Although the present study provides a new understanding of SJDR, there are several directions for future researchers to build on its findings. Because of the challenges faced in recruiting students with disabilities, future researchers should carefully consider effective ways to recruit students and ways to minimize the inherent power dynamics in a study of this nature that may influence students' willingness to engage in this research. Future researchers should also consider enhanced efforts to understand the ideal implementation of SJDR by soliciting input from additional stakeholders (e.g., different campus departments, students, and families). In addition, because of the numerous activities required in an appreciative inquiry, future researchers should make efforts to lengthen the amount of time used in the present study (initially two hours, extended to three hours total) to allow for more in-depth conversations among participants in any future iterations of this process. Future researchers may also consider exploring participants' backgrounds and experiences further to better understand the influence these factors have on their perspectives of both SJDR and the positive core (e.g., background in special education). Finally, future researchers may explore the conceptual model presented in Figure 7 to better understand if it is consistent among DRCs, and if it can be applied to other DRCs to foster positive change.

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The Introduction to College Life Program: Transition Support for Autistic Students (Practice Brief)

Jodie Kocur[1]

Abstract

While much support exists for autistic individuals from infancy through secondary education, better support is needed for autistic students' transition to higher education. Autistic high school students are less likely than nonautistic students to pursue postsecondary education and report experiencing various difficulties in college, such as mental health struggles and social isolation. The two-week Introduction to College Life Program (ICLP) was designed to support autistic high school students by giving them the opportunity to learn more about college and practice skills that are helpful for college success. The ICLP curriculum, which is grounded in the literature regarding supporting autistic college students, includes topics such as time management, self-advocacy, social engagement, dorm and commuter life, and self-care. The ICLP has been offered twice in person and twice online. To assess and continue to develop the program, autistic program participants completed an interview or an online survey about their experience in the program. Twenty-one participants provided feedback. All of the participants reported that the program positively improved their feelings about attending college (86%) or maintained their positive feelings about college (14%). Experiential activities, such as practicing communicating with faculty, were noted as the most helpful. Details regarding the program curriculum, participant feedback, and ways this program model may be utilized by other colleges and universities are discussed.

Keywords: autism, high school, postsecondary education, transition planning

There is currently a growing body of literature regarding the increasing number of autistic students entering postsecondary education and ways to support their unique combinations of strengths and challenges in the college setting (e.g., Anderson & Butt, 2017; Fernandes et al., 2021; Hillier et al., 2019; Rowe, 2022). A recent survey of college students in the United States found that 2.3% reported an autism diagnosis (American College Health Association, 2022), compared to earlier studies that have found college student prevalence rates of less than 1% (e.g., Bakker et al., 2019; White et al., 2011). The increasing number of autistic college students mirrors an overall rise in the percentage of children diagnosed with autism, which is now reported as 1 in 36 eight-year-old children (Maenner et al., 2023).

Depiction of the Problem

The transition to college can be a difficult time for many students given the increased academic pressure, adjustment to college social life, and increased expectations for independence. For autistic college students, social communication differences, sensory sensitivities and a preference for routine may add to these challenges. Indeed, research has found that many autistic high school students "experienced distress as graduation approached" (Anderson & Butt, 2017, p. 3033). Rates of autistic students who attend college are lower than for their nonautistic peers. For example, Wei and colleagues (2016) found that only 30% of autistic high school students attended a two- or four-year college, compared to 66% in the general population (U.S. Bureau of Labor Statistics, 2022). Many autistic students who do begin a college program report experiencing difficulties (Cai & Richdale, 2016; Fernandes et al., 2021, Goddard & Cook, 2022) and graduation rates are lower for autistic students compared to nonautistic students (38.8% vs. 52.4%) and students with other disabilities (40.7%) (Newman et al., 2011).

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Summary of Relevant Literature

Research has demonstrated that preparing for the transition to college can alleviate concerns and increase the likelihood that autistic students pursue college if they so desire. Wei and colleagues (2016) found that 54% of autistic students who participated in transition planning enrolled in a two- or four-year college compared to 17% who did not. Currently, the Individuals with Disabilities Education Act (IDEA, 2004) mandates that students receive transition planning including preparation for the work or education the student wishes to pursue after high school graduation as part of their Individual Education Plan (IEP) process during secondary education (Pub. L. No. 108-446, §1400). Unfortunately, however, there are significant inconsistencies in the implementation of such supports, such as whether students participate in the process and whether college is listed as a transition goal (Anderson & Butt, 2017; Alverson et al., 2019; Wei et al., 2016). Given these inconsistencies, Anderson and Butt (2017) concluded, "Clearly, there is an urgent need to evaluate routine practices at transition and consider possible alternatives" (p. 3038).

Research on evidence-based strategies for supporting the transition from secondary to postsecondary education for autistic students is beginning to emerge. For example, autistic high school students who were randomly assigned to a transition program that focused on psychosocial needs experienced a more significant increase in transition readiness than students assigned to transition as usual (White et al., 2021). In another study, a peer-mentor college transition program was found to increase autistic high school students' knowledge about college (Hillier et al., 2019).

Description of the Practice: The Introduction to College Life Program

The above findings highlight the importance of more support options for autistic adolescents who wish to pursue their talents and passions in college. The Introduction to College Life Program (ICLP) curriculum was developed based on the current literature regarding autistic students' experiences in college. For example, the program aligns with the four core themes for successful transition planning identified by parents of autistic college students and professionals who work with these students including helping students "to grasp the big picture," "to be seen," "to have high aspirations," and "to be prepared" (Hatfield et al., 2017, p. 187).

Setting and Participants

The ICLP was offered during the summers of 2018, 2019, 2021, and 2022. The 2018 and 2019 programs were offered at a small liberal arts university where the program director is a faculty member and the program assistants were undergraduate psychology students. Attending the program on a college campus gave participants the opportunity to see college classrooms (where program sessions were held), the cafeteria, student union, and dorms. Due to the pandemic, the 2021 and 2022 programs were offered online through synchronous Zoom meetings. The ICLP initially included six 90-minute sessions over a two-week period; however, the 2022 program was extended to eight sessions to allow more time for activities.

In order to gather participants for the ICLP, a recruitment email was sent to local autism support agencies, high school counselors, and professionals who support autistic students in the area (collected through a Google search). A total of 31 autistic students (9 women and 22 men) participated in the program, including 10 students in 2018, 5 in 2019, 12 in 2021, and 4 in 2022. Participants were between the ages of 17 and 20 years old and were preparing to begin their senior year in high school or their first year in college. Participants all self-reported an autism spectrum diagnosis. (Race, ethnicity, and socioeconomic status data were not collected.)

Group Structure with Individualized Support

One of the challenges for group programs that support autistic students is the diversity of strengths and support needs that autistic individuals may experience. Research on the transition process has emphasized the importance of individualizing transition planning (e.g., Hatfield et al., 2017; Fayette & Bond, 2018; Szidon at al., 2015). In order to meet this need, ICLP participants were partnered with one of the program assistants. The program included group discussions and activities, giving participants the opportunity to create a network of autistic peers pursuing similar goals, and one-on-one conversations with a program assistant, which provided individualized support. Program assistants were autistic and non-autistic junior and senior undergraduate psychology students who volunteered to assist with the program. (Each year one program assistant self-disclosed an autism diagnosis.) Program assistants attended three training meetings with the program director prior to the program.

Session Topics and Activities

Introductions and Goals

Research on transition planning emphasizes that students' individual goals should be placed at the center of the process (Fayette & Bond, 2018; Hatfield et al., 2017; Szidon et al., 2015). Therefore, in the first session, program participants and staff share their goals for the future and the aspects of college they are excited or concerned about. Program assistants then share ways in which high school is often different from college. One difference that is highlighted is the ability to choose classes in college that align with interests. Participants are then given the opportunity to take an online interest inventory that matches interests to careers and college majors.

Planning and Time Management

Program assistants also share that another significant difference between high school and college is an increase in the need for effective time management. High school autistic students who were interviewed about transitioning to college reported worrying about time management and meeting deadlines (Lambe et al., 2019) and time-management was the most frequent response when autistic college students were asked what they wished they would have improved in high school to improve their college academics (Reis et al., 2021). The time management activity in the ICLP gives participants an opportunity to think about their weekly schedule in college. Participants are provided with sample syllabi from three different college courses and are asked to add these course times to a page from a weekly planner. Program assistants then share the amount of independent study time that is required in college classes. This activity provides a visual sample of the amount of time that needs to be spent in class in college versus the amount of time students would need to manage independently. Participants then create a preferred weekly schedule with their program partner.

College Faculty Pedagogy and Group Work

The second session begins with program assistants sharing examples of different teaching styles in college classes (e.g., lecture only, PowerPoint, group work). Autistic students report experiencing concerns about group work, especially when it is unstructured (Lambe et al., 2019). Therefore, in this session a faculty member gives a mini-lecture and then assigns a handout to complete with a partner in addition to a mock group project. The program assistants and participants then discuss their past experiences with partner and group work and brainstorm solutions for any challenges shared (e.g., how to address fair distribution of work). Participants are then given the opportunity to practice coordinating work with others.

Self-Advocacy and Faculty Office Hours

College students are responsible for seeking help when they need it from faculty, staff, and/or peers. Interviews with autistic high school students found that many reported concerns about not doing well academically in college (Lambe et al., 2019). In addition, self-advocacy and initiating social communication may be difficult for some autistic individuals (Rowe, 2022). Therefore, the third session of the ICLP includes a discussion of the importance of utilizing campus resources for academic support. Program assistants describe their experiences with tutors, writing centers, math labs, and faculty office hours. Next, a current autistic college student shares their experience with self-advocacy. After the presentation, participants practice writing an email to a professor to request an appointment during office hours, and then meet with a professor to practice asking questions about the professor's teaching style.

Disability Support

Parents are often very involved with their student's academics in secondary education; however, college students are expected to communicate with college offices independently. This expectation is due in part to the Family Educational Rights and Privacy Act (FERPA), a Federal law which protects a student's privacy to their educational records, thus limiting the information college faculty and staff can share with a student's parents (20 U.S.C. § 1232g; 34 CFR Part 99). The ICLP includes a presentation from the college's disability support office about how to access accommodations, types of accommodations, and confidentiality regarding disability information in the college setting. Participants then talk with their partners about the information shared, exploring the following questions: How do they feel about registering with a disability support office? What accommodations might be helpful for them in college?

Social Engagement

College life is filled with opportunities for social engagement. However, autistic high school students report that connecting socially is one of their primary concerns (Lambe et al., 2019) and autistic college students are at a greater risk for feeling isolated and lonely (e.g., Jackson et al., 2018). In the social engagement session, program assistants share opportunities to connect with peers in college, such as campus activities and student clubs. Participants

then utilize classroom computers to look on college websites for clubs related to their interests. Lastly, participants practice making plans to attend an event with their program partner.

Self-Care

Autistic college students report high levels of stress, anxiety, and depression (Hillier et al., 2019) so self-care of mental and physical health during college is integral to success. In this next program session, program assistants share the ways they learned to stay healthy in college (e.g. packing healthy food from home, getting enough sleep, utilizing campus fitness, counseling, and health centers). Given the rise in mental health concerns during the pandemic, a presentation on stress-management by a therapist at the college counseling center was added in 2022. The therapist also leads the group in a mindfulness exercise they can use for self-care.

Dorm and Commuting Life

Lastly, the ICLP includes a discussion about living on a college campus, including advice for living with roommates and information about residential staff members who support dorm life. Participants in programs held on campus are shown a college dorm and participants in the online programs are asked to take an online campus tour. This session also includes advice from program assistants who commute to campus, such as finding places on campus to study in between classes, commuter kitchens, and events for commuter students sponsored by the college.

Evaluation of Observed Outcomes

The ICLP staff gathered feedback about the program from the participants each year to evaluate and continue to develop the program. The primary researcher's university Institutional Review Board approved the study prior to data collection each summer.

Procedure

All participants were given the opportunity to provide feedback about the program at the end of the last session. Informed consent (for participants over age 18) and parental consent and child assent (for participants under the age of 18) forms were completed by participants who elected to do so. For the first three programs, program assistants gathered feedback via individual structured interviews (formulated by the program director) with their program participant. In order to try to increase the number of participants who felt comfortable providing feedback, and add quantitative data regarding every program session, participants in the 2022 program gave feedback via an online Qualtrics survey which included both quantitative and qualitative questions.

Participants Who Provided Feedback

Of the program attendees, 21 of the 31 (68%) elected to provide feedback. Participants were between the ages of 17 and 20 years old ($M = 17.81$, $SD = .81$) and included 16 males and 5 females. All participants self-reported being on the autism spectrum. (See Table 1.)

Table 1

Demographic Information for Participants Who Provided Feedback

Program	Participants who provided feedback		Gender		Year in school after program		Type of college		
	N	%	M	F	HS senior	First-year college	Community	4-year	Vocational
2018	8/10	80%	7	1	5	3	1	2	
2019	3/5	60%	2	1	2	1		1	
2021	6/12	50%	4	2	2	4	2	1	1
2022	4/4	100%	3	1	1	3	1	2	

Changes to Participants' Feelings About College

Participants from all program years reported whether and how their feelings about college had changed after the program. Interviews included the questions, "How did you feel about college before starting this summer program? Have your feelings changed? How so?" The program director and three program assistants coded the qualitative responses. Of the responses, 14 of the 17 (82%) participants indicated a positive change. For example, one participant shared, "I was not worried about academics but more so about the social parts and just change in general. I feel better. The information was helpful!" Another explained, "I was concerned and uncertain [before the program]. I am less concerned now because I have a clear understanding of how it works." Another shared a similar sentiment, "I felt decently nervous. I felt a lot of confusion when talking [about college] in high school. [Now] I feel much more reassured knowing that my disabilities will be accounted for. I really enjoyed hearing everyone's experiences and I feel prepared to anticipate everything and less scared."

Of the participants who completed interviews, 3 of the 17 (18%) reported having positive feelings about college before the program which had not changed. For example, one participant noted, "I felt good [before the program]. Very sure of myself. No change, I [still] feel good. I know what I like and don't like." None of the participants reported a negative change.

All 2022 participants who completed the online survey reported that the program had been "Helpful" or "Very Helpful" for decreasing their anxiety, questions, and concerns about college (*ns* = 2 and 2, respectively), and all reported the program was "Helpful" for increasing their knowledge about college life ($N = 4$).

Timing of Program Participation

Interviewers asked participants in the 2018, 2019, and 2021 programs whether they felt they had attended the program at a good time in their academic career or if there would have been a better time. All participants from these programs ($N = 17$) reported they had participated in the program at a helpful time. Two students who were preparing to start their first year of college noted that participating earlier would have been helpful as well. For example, one shared that they would have liked to participate earlier to reduce their anxiety about college earlier.

Effectiveness of the Online Delivery of the Program

The online survey for the 2022 participants asked whether attending the program online had been effective. All participants reported that attending the program online was "Effective" or "Very Effective" (*ns* = 2 and 2, respectively).

Most Helpful Sessions

Interviewers asked participants in the 2018, 2019, and 2021 programs which sessions or activities were most helpful. Sixteen activities or discussions were listed by at least one participant and six activities were listed by at least three participants (see Table 2). The majority of the activities that were noted as most helpful included an experiential component. One student explained, "The outside activities were the most helpful. As well as having practice during social situations that I may encounter in college such as the office hour. I really enjoyed getting to practice in an activity like that." Another noted, "It put me out of my comfort zone to do the roleplaying which was helpful." The survey administered to the 2022 program participants asked participants to rate how helpful they found each program discussion or activity. As shown in Table 2, 10 of the 14 (71%) discussions or activities were reported as "Helpful" or "Very Helpful" by all participants.

Least-Helpful Sessions

The interview also included a question about which program topics the participants found to be unhelpful. Five activities were noted as being unhelpful by one or two participants: practicing note-taking, email to a professor, the dorm visit, disability support, and the presentation from a current autistic college student. After the 2018 program feedback, practicing notetaking was no longer included given that many students receive a note-taker as an accommodation. Due to the fact that the other activities were listed by multiple participants as helpful, the other topics were kept in the program. Participants from the 2022 program rated none of the sessions as "Unhelpful."

Overall Experience

Participants from all programs were asked about their overall experience in the program. All participants who included further comments shared positive reflections. For example, one participant noted, "The program is very broad just like the spectrum of autism. Thus, I think it is very helpful to everyone." Two students shared that having a program assistant as a partner was especially helpful. One explained, "I especially liked the one-on-one component of the program. Although I was hesitant at first, it was helpful to have the individualized conversations." And the other noted, "I felt the mentors were amazing. They had so much information to give, especially on which schools I should apply for and I felt that they were

Table 2

Activities Reported as Helpful

Discussion/Activity	Interview feedback *N* = 17	Survey feedback N = 4
	Most Helpful	"Helpful" or "Very Helpful"
	n	*n*
Faculty office hour meeting	10	4
Social connections	7	4
Current autistic college student's talk	6	4
Disability support	4	4
Dorm tour	4	4
Creating a weekly schedule	3	4
Time management		4
Academic support		4
Health		4
Growth mindset		4
College websites		4
Counseling Center talk		4

very knowledgeable." Two students noted that the program was helpful for making college plans. For example, one student shared, "[The program is] definitely informative for people who don't know about their future college goals." And another reflected, "This was a cool program. It is great, especially if you're the first to go to college and don't know what to do because having friends or family who have been through college can also help."

Implications and Transferability

The ICLP is a model that can be followed at any college or university. While the program was initially created and facilitated by a faculty member, the ICLP model can also be directed by, or in collaboration with, college student support staff, such as those in disability support or counseling offices. These offices also often have student workers who may be interested in participating as program assistants. Additionally, while the ICLP was offered to any high school students in the area, this model could be used for the autistic students who are transitioning into a specific college or university. Lastly, while the ICLP curriculum was created based on the research on the experiences of autistic college students, the activities and information may also be beneficial for college students with other disabilities. In regard to resources needed to implement the program, planning involves approximately 10 hours sending recruiting emails, organizing speakers, and holding training/planning meetings. An internal mini-grant provided a small stipend for the director, program assistants, and speakers. In addition, program assistants could receive one unit during the subsequent fall semester for their assistance with analyzing the program data. There were no other program costs.

Based on the feedback from participants in the ICLP, it is recommended that future programs continue to cover the topics discussed above and continue to include program partners to individualize the program. It is also recommended that future programs be held in person on a college campus when possible. While all participants noted that it was effective to participate in the program online during the pandemic, doing so did not allow participants to see different parts of a college campus in person, which was noted by participants as helpful and also served as a break from sedentary time in the classroom. (This was the only noticeable impact of the pandemic on the program.)

Given that autism is experienced differently for each person, it is also important to continue gather-

ing feedback from participants of programs like the ICLP. One difficulty we encountered was that some participants did not want to complete an interview to share their feedback. In order to try to increase participants' comfort with providing feedback, an online survey was used in the 2022 program. All participants in this program completed the survey; however, all participants skipped the open-ended questions. Future program staff should continue to consider ways to increase participants' comfort with providing feedback.

Attending college is an important opportunity for students to advance their education and pursue their passions and career goals. The current literature suggests that more support is needed for the transition to college for autistic students. The Introduction to College Life Program model can be followed by any college aiming to contribute to the success of the growing number of autistic students.

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Inclusive Postsecondary Sex Education Using Inquiry-Based, Peer-Led Learning (Practice Brief)

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Abstract

Sex education in the United States is rarely comprehensive and inclusive, and individuals with disabilities are typically left out of sex education programs and conversations. When they do have access to sex education, it tends to focus on abuse prevention while ignoring sexual expression. The dearth of sex education available for disabled young adults has led to a need for self-directed sex education programs at the postsecondary level. Such a program, named Included, is inclusive of students with and without disabilities. Through flexible eight-week sessions, Included encourages students to ask questions, find reliable answers, and create content to share on Instagram. Included consists of weekly small and large group meetings. Large group meetings aim to evaluate content created by small groups and develop group members' identities as sex educators. Small group meetings aim to promote peer-led creation of material related to sexuality topics of interest. Grounded in the principles of inquiry-based learning, this peer-led program provides a structure for individuals to develop an understanding of diverse topics in sexuality while developing sex educator skills. From continuous improvement efforts and a community-based participatory research project, we learned that group members gained competence in sexuality topics and facilitation skills. The collaborative nature of the project encouraged an ongoing evolution of practices to increase the groups' effectiveness and inclusivity. Included is a promising emerging practice encouraging access to self-directed sex education at the postsecondary level for students with disabilities.

Keywords: postsecondary, sex education, inclusion, peer-led learning, inquiry-based learning

According to the Sexuality Information and Education Council of the United States (SIECUS), sex education is a lifelong process of receiving information about sexuality through a variety of formal and informal sources (SIECUS, 2018). The United Nations Educational, Scientific, and Cultural Organization (UNESCO), in collaboration with a variety of global health organizations, states that the aim of comprehensive sex education is to enable young people to develop healthy and respectful sexual lives (UNESCO, 2018). Unfortunately, only 60% of students in general education and 47% receiving special education under the autism designation receive sex education in school (Holmes et al., 2022). Furthermore, even when students receive sex education in school, it is likely to be insufficient. In the United States, there are National Sex Education Standards that were developed through a collaboration between multiple public health organizations in 2012; however, only about 40% of districts have adopted the standards (Centers for Disease Control and Prevention, 2016). Thus, many students, particularly students with disabilities in postsecondary education, are likely to need additional sex education.

Because of the high rates of sexual assault among college students and federal mandates that specifically address sexual violence prevention, many university-based sex education programs target self-protective skills and assault prevention (Feina et al., 2016). In focus groups with university students, Feina et al. (2016) identified that students (a) find assault prevention programs to be inadequate and (b) want comprehensive sex education; these findings are corroborated by previous research (Hubach et al., 2019). Although there is no one accepted definition of comprehensive sex education, a review of the literature found four

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consistent components of emphasis: positive sexualities and respectful relationships; rights, participation, and agency; sexual and reproductive health concerns and practices; and gender equality and power relations (Miedema et al., 2020). When offered at the college level, comprehensive sex education is usually offered as a credit-bearing course (Manning-Ouellette & Shikongo-Asino, 2022). In terms of sex education outside of coursework, a review of 413 higher education websites found that 29% offered any type of sexual health program, and of these programs, 38% had a peer educator component (Shigeto & Scheier, 2023).

Peer-led sex education is an alternative model to the standard teacher-to-student model in which members of similar ages are trained to increase their knowledge and skills so that they may be role models and trusted sources of information (Sun et al., 2018). A systematic review of peer-led sex education on college campuses found this type of sex education increased knowledge of sexual health topics and the use of condoms and HIV testing (Wong et al., 2019). For college students with disabilities, peer-led sex education may be critically important as parents and educators may hold patronizing beliefs about their sexuality (Frawley & O'Shea, 2020). Furthermore, for many college students with disabilities, particularly autistic students, college can be a time of social isolation, and it can be difficult to find a disability community (Frost et al., 2019).

Depiction of the Problem

The lack of diversity in sex education is a persistent area of concern. A systematic review of 39 articles on the role of sex education found substantial evidence to support education that is inclusive of lesbian, gay, bisexual, transgender, queer, intersex, asexual, and additional identities (LGBTQIA+) as well as a social justice approach to sex education; however, most of the examples of inclusive curricula came from Europe (Goldfarb & Lieberman et al., 2021). In the United States, there has been increasing public scrutiny of LGBTQIA+ identities, with over 500 anti-LGBTQIA+ bills being introduced in 2023 (American Civil Liberties Union, 2023). A lack of inclusive sex education affects students with disabilities in two primary ways. First, many disabled students have queer identities and thus need inclusive sex education and support for their intersectional identity (Miller et al., 2019). Second, LGBTQIA+ inclusive sex education is just one form of inclusion—when sex education is heteronormatively restricted, it precludes many expressions of sexuality, including the sexual expression of cisgender, heterosexual disabled people (Callen, 2022). Taken together, the extant research suggests a need for inclusive sex education at the postsecondary level.

Setting and Participants

This project takes place at the University of Delaware and describes a registered student organization (RSO). The group is composed of disabled young adults and non-disabled peers. We do not require participants to disclose their disability identity, but many have chosen to disclose either when joining the group or during their time as a member. Each group in Included has always had at least one participant who openly identifies as having an Intellectual disability and one participant who identifies as Neurodiverse. We recruit from the certificate program for students with intellectual disability, the autism student support program, the disability resource office, a disability-centric scholars program, undergraduate research assistants, flyers, and word of mouth. These efforts attract students with and without disabilities, but all students have an interest in disability. A core feature of Included is its co-created nature, in which equal power dynamics among participants are strived for—neither formally nor informally is there an instructor–student dynamic, but rather a community working together to research and produce sex educational content and disseminate it online.

Description of Practice: Included

Included is an Instagram-based peer-led program that dismantles the typical principles of sex education by encouraging self-guided, inquiry-based learning. Derived out of the need for inclusive and diverse sex education for young adults with disabilities, Included promotes the exploration of a wide variety of topics about sexuality. Included has evolved to be an eight-week program held twice a year, in accordance with fall and spring semesters. Participants are asked to dedicate two hours weekly to attend one large group and one small group meeting and participate in the inquiry-based learning process. Many participants continue with the program over multiple semesters. Included started as a Zoom-based program because of COVID-19 and maintained a hybrid format because we found this format increased accessibility.

Regarding development, Included was initially conceptualized by a neurodivergent undergraduate student who was interested in developing a sex education program for students with disabilities. Graduate students and a faculty member provided support in the first two semesters but that support faded once

the program was established. It is now a registered student organization (RSO) on campus. Each aspect of the program will be described in greater detail.

Theoretical Background: Inquiry-Based Learning

Inquiry-based learning is a pedagogical practice commonly used in science education in which students are (a) self-directed, (b) engaged in authentic research, and (c) moving through cyclical phases of exploration (Pedaste et al., 2015). Inquiry-based learning has a strong history of effectiveness, especially when compared to didactic instructional approaches (Lazonder & Harmsen, 2016). Additionally, inquiry-based learning aligns with the values of the Included program. As the goals of Included are to position each member as an educator and a leader, inquiry-based learning provides a method for achieving that goal. Inquiry-based learning is also developmentally appropriate—as all members of the group are young adults, expository approaches towards sex education may reinforce the infantilizing stigma surrounding disability and sexuality (de Wit et al., 2022).

Large Group Structure

During an eight-week session of Included, large group meetings are a staple feature that occur weekly for one hour. There are two primary goals of large group meetings: evaluating content created in small groups (discussed in the small group structure section below) and developing identities as sex educators. Developing identities as sex educators included group building activities, professional development and skill building, guest speakers to further knowledge on topics of interest, and discussions of relevant topics.

Reviewing Posts. One primary goal of large group meetings is to evaluate content created in small groups, which is a dynamic task. The evaluation process involves input from all group members on accuracy, accessibility, and inclusivity. During the review session, we collectively ensure that each post is supported by credible and accessible sources and that these sources are cited through hyperlinks. Additionally, we evaluate the posts for accessibility, including aspects of the text (e.g., font, text size, color), usage of plain language, and using images to aid learning (e.g., not overly decorative). Lastly, one primary goal of Included is to create and provide posts on sexuality that are inclusive to all individuals. Therefore, a major focus of the evaluation process is to alter the material to be inclusive of all genders, sexualities, ability status, and ethnicities. For example, when writing a post on menstruation, we collaboratively discussed using terms such as "people who menstruate" rather than gendered terms and how these terms promote inclusivity. Figure 1 is an example of an Included post about LGBT+ terminology.

Developing Identities as Sexuality Educators. Large group sessions focused on identity development have incorporated workshops on adding Included to one's resume, discussions on topics such as "Can caregivers and guardians tell disabled people they can't date?" and guest speakers on topics that the group has directly expressed interest in (e.g., self-advocates discussing their experience with sexuality). Professional development skills typically arose from group members' ideas or questions, such as how to use social media in a professional way. Group discussions were also generated by group members and typically aligned with current events. The group discussed the overturn of Roe versus Wade in 2022 and subsequently produced a post about abortions. Additionally, following a traumatic sexual assault on campus, the group discussed the event, brainstormed how to use their platform to fight against domestic violence and sexual assault, and created a post about sexual assault that both educated Included members and the broader community. Lastly, the group members expressed interest in inviting community members to speak to the group about various topics. Guest speakers enabled the group to learn about diverse topics and make connections within the community. One speaker from Planned Parenthood of Delaware became a great resource for future posts and other opportunities for members.

Small Group Structure

Small group meetings facilitate the creation of content, foster strong connections between members, and provide a safe space for learning. Small groups consist of three-five group members with and without disabilities. Like large group meetings, small groups were offered in a hybrid fashion to promote accessibility. Included evolved to designate separate virtual and in-person small groups, which allowed members who have a strong preference for virtual or in-person learning to be put in a group with a format that is comfortable for them. Each small group worked at a different pace, and new small groups sometimes took time to fall into the rhythm of working together. Because the evaluation process is cyclic, one post could take multiple weeks to evaluate and edit before it would be ready to be uploaded to social media.

Small groups follow a three-step process: (a) brainstorming questions about sexuality, (b) finding answers with peers, and (c) creating an Instagram post on the topic (using Canva—a free online graphic

Figure 1

Example of an Included Post About LGBT+ Vocabulary (Originally in Color)

design tool). This process allows for inquiry-based, peer-led learning focused on helping the learner transition to the provider of knowledge. In each small group, members are first asked to brainstorm different ideas in the domain of sexuality that they are interested in researching. After agreeing on a topic and specific question(s) to investigate, small groups progressed to finding reliable answers. In some cases, the process of finding reliable answers proves to be challenging for members due to a variety of barriers. Many individuals are not familiar with evaluating websites and sources based on reliability, accuracy, and accessibility. This has been overcome through sharing progress with the large group and getting peer feedback. Lastly, small groups use Canva to create an Instagram post with accessible and valuable information on the topic they research. Canva allows members to share posts with one another, creating an opportunity for members to work on posts collaboratively.

The use of Instagram allows Included participants to learn about material that interests them and share such content with others, strengthening participants' identities as both students and sex educators. During the creation of Included, the social media platform Instagram was chosen deliberately due to its widespread use on college campuses, accessibility features (e.g., alternative text for images, emphasis on images rather than text), and community of disabled users. As a group, we created an Instagram account that a group facilitator was responsible for managing. The facilitator was responsible for posting content created and approved by the group. Included did not require participants to have Instagram accounts nor have experience with social media. However, we found that many of our participants, with and without disabilities, were already using Instagram.

Leadership Structure

The leadership structure of Included has evolved throughout the program. All members work together, share ideas, and hold ownership of the content created within the group. While the main goal of Included is to level power dynamics and promote equity, it has proved to be important to identify facilitators to answer questions, organize meetings, and lead recruitment efforts. In large group meetings, the program facilitator is responsible for formalizing an agenda for each meeting, creating a visual resource (i.e., PowerPoint), sending materials to participants prior to the meeting time, and facilitating conversation and activity throughout the meeting. To ensure the success of all participants, the facilitator sends out a detailed agenda for meetings in advance, including all discussion questions or topics that an individual may be asked about, sending multiple reminders of upcoming meetings, and securing accessible technology for members. By performing these "behind-the-scenes" tasks, the facilitator takes the burden of preparation from group members, allowing for more energy to be spent within the group.

Within small groups, we strove to actively dismantle power differences between neurodiverse and neurotypical individuals. For this reason, the large group facilitator is not included in small groups. However, logistical tasks are necessary to make the small groups functional. Thus, we identify one small group member to coordinate meeting times and locations/Zoom links for their group. One of the small group facilitators, who identified as having an intellectual disability, shared that this role was helpful in learning how to set up a meeting and that he felt more responsibility in his group.

Evaluation Methods

Included has engaged in continuous improvement efforts, and through these efforts, has evolved significantly throughout the years as we embraced adaptations and incorporated innovative ideas and perspectives into values and programming. One strategy we have used is distributing surveys that ask members to assess their current feelings about the group and detail any problems or ideas they have had. The facilitator plans changes in response to this feedback and then brings those changes back to the large group to ensure that they adequately meet the needs and expectations of all members. Additionally, we conducted a qualitative, interview-based community-based participatory research project (Author cite, 2023). We identified that members felt they gained a greater sense of competence about human sexuality topics as well as skills related to running a group, such as facilitation, research, and instruction. For example, one participant shared, "Being able to explain it to other people has been really helpful, because I've been learning to actually talk about it in a way that's understandable." They go on to say, "I like looking into things, and I like finding out what other people are curious about. I don't know. I just like informing myself while informing others." Together, these quotes show how the members of Included learned through the inquiry-based learning process. Members felt like they learned how to be more accessible and inclusive, but ableism still operated within the group. For example, one participant commented,

> You might have people who are just saying yes, even though maybe it's not being presented in a way that's understandable or it's just the easiest option at the time to be like, 'Yeah, that's a great idea,' and not really think through what [the] idea means and how that will affect the content that they're creating.

The quote highlights how the community-based participatory research project allowed members of the group to identify and process power dynamics between those with and without disabilities.

Although the participatory research project allowed for a systematic evaluation of participants' experiences with Included, it did have several limitations. First, it only highlighted the perceptions of members and did not have any external evaluations of students' learning. The analysis of perceptions may have been influenced by the lived experience of being part of the group as the community-based approach meant the members of the research team were also part of the program. Additionally, we did not measure the effectiveness of the learning materials produced by Included. Finally, we did not compare Included to other approaches of sex education nor within group differences between participants with and without disabilities.

A unique element of Included is the interaction with others outside of the group via Instagram. Included has grown throughout the years, acquiring around 170 followers. Additionally, Instagram has a feature in which one can deem their profile a "business account," allowing the owner to view analytics including how many accounts a post reaches. Included became a business account in December 2022. After this date, our posts reached between 70 and 135 profiles, with an estimated 40% of profiles reached being accounts that did not follow us. Our most popular post, reaching 135 accounts, detailed several types of relationships including platonic, romantic, open, and casual.

Implications and Transferability

We hope that Included provides an alternative model to more traditional forms of sex education. To that end, we have made all resources developed for Included freely available online (asdsexed.org). Included was developed to be developmentally appropriate and authentic for emerging adults—a period in which sexual identity is a central developmental task and there is an increasing need for autonomy (Olmstead, 2020). Furthermore, Included provides a model for inclusive campus programming in which students with disabilities come together with those without disabilities as leaders and experts. The format contrasts much of the campus programming in which non-disabled students act as peer mentors while maintaining a position of power and authority that mirrors broader social power inequalities (Morris et al., 2024).

The topics that the students self-selected were not necessarily aligned with the curricular choices prioritized by universities, which primarily focus on sexual assault prevention and, to a lesser extent, sexual health (Shigeto & Scheier, 2023). Other research has suggested that students want a broader range of topics at the college level, including the diversity of sexual behavior and identity, relational and ethical aspects of sexuality, sexual empowerment, the mechanics of sex, and sexual physiology (Astle et al., 2021). Included adds to this literature by providing evidence that students with disabilities are also interested in diverse topics and the specific diverse topics that might be of interest to students. The breadth of topics students want information on is valuable information for disability resources and Title IX offices for both these offices to fulfill their missions of ensuring all students on campus can participate fully and safely. Because of Included's innovative approach, the faculty advisor was asked to meet with the developer of the sexual misconduct prevention training (which is mandated for all incoming students) to help ensure its accessibility.

We acknowledge that Included's reliance on Instagram may not be accessible or appealing to some individuals. Included's peer-led, inquiry-based model of sex education does not require the use of social media to disburse content. An alternative to creating/posting content on social media could be sharing information in large group meetings. That said, the added element of creating content for social media is intriguing to many of our members. Our members have enjoyed the creative aspect of creating content, the social nature of posting on Instagram, and becoming sex educators by sharing information with a public audience. The social media landscape is quickly and constantly evolving, so we advise that future facilitators of programs like Included survey members on preferred social media sites and accessibility features.

The next steps for Included are to consider issues of sustainability and expansion. At this time, the shared leadership model has ensured that the program could continue once the original developer graduated, but given the student-led nature of the program, challenges with sustainability and expansion will need to be explored over time. At this time, Included has only been implemented on one campus, and educational outcomes have not been examined in comparison to other types of sex education programs. Included provides a model for peer-led and inquiry-based programming as opposed to the instructor-led, didactic forms of sex education often provided in university settings. Future research should explore the relative efficacy of these types of models. Additionally, we have made efforts to share our programming materials with others in hopes of a similar program being implemented on a different college campus. In addition to posting free Included materials and a manual online, included information has been shared with other inclusive postsecondary programs via presentations at conferences. The creator of Included is also pursuing a graduate education at a different university and plans to implement Included during her academic career.

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JPED Author Guidelines

Purpose

The purpose of the *Journal of Postsecondary Education and Disability* (JPED) is to publish research and contemporary best practices related to disabled college students, college and university disability services offices, disability educators, and disability studies as a field within and lens for the study of higher education institutions. The sponsoring organization for the JPED is the Association on Higher Education and Disability (AHEAD), the primary source of disability related expertise on accessibility, legislation, rights, and any other disability-related information as it pertains to higher education. Consistent with the overall goals of AHEAD, each JPED article includes practical *implications for disability services educators* in colleges and universities.

Review Process

The JPED is peer-reviewed and uses a masked-in-both-directions review process. Although our reviewers take care to provide developmental feedback, it is essential that prospective authors follow the guidance and formatting instructions in this document carefully. The editorial process is not typically able to address major issues of conceptualization or craft in a way that leads to eventual publication.

Manuscript Topics and Types

Published manuscripts will advance JPED's purpose as detailed above (i.e., research, best practices, implications for disability services educators).

Research Articles

Manuscripts demonstrate scholarly excellence using one of the types of articles described in the *Publication Manual of the American Psychological Association* (7th edition, American Psychological Association [APA], 2020) sections 1.1-1.8 These include quantitative, qualitative, mixed methods, replication, meta-analyses, literature review, theoretical, and methodological articles. ***Inclusive of all manuscript elements (including title page, references, tables, and appendices) research articles cannot exceed 35 pages and typically are between 25-30 pages.***

Practice Briefs

Manuscripts describe innovative programs, services, or contemporary best practices that support disabled college students or disability services, and are organized using the following first-heading levels (APA 2.27):

- **Summary of Relevant Literature:** provide a succinct summary of the most relevant and contemporary literature that provides context for what is already known about the practice/program.
- **Setting and/or Participants Demographics:** provide enough information about the implementation context for the practice described for the reader to make an informed assessment regarding similarity to their own practice environment-- using a pseudonym or compositing as needed to provide anonymity for participants / institutions involved;
- **Depiction of the Problem:** provide a statement of the problem being addressed.
- **Description of Practice:** briefly describe the intended outcome for the innovative practice/program and how it has been implemented to date. Tables and figures may enhance specific details.
- **Evaluation of Observed Outcomes:** summarize formative and/or summative data used to evaluate the efficacy of your practice/program; support claims with evaluation data.
- **Implications and Transferability:** discuss what has been learned and how this practice/program could be enhanced. Be realistic about any challenges encountered and how others seeking to replicate the practice elsewhere might experience them. Offer suggestions about what could be done differently in the future to achieve better outcomes. Provide a clear description of how and why other disability service educators should consider adapting your practice/program.

Inclusive of all manuscript elements (including title page, references, tables, and appendices) practice briefs cannot exceed 15 pages and typically are between 8-12 pages.

Media Reviews

Prior to preparing a media review, please contact the JPED's Managing Editor (jped@ahead.org) to discuss the resource (e.g., book, film, online resource) you are considering reviewing. Media reviews provide:

- An overview of the resource, identifying the stated purpose, the author/creator and their viewpoint, and a general summary of the content.
- An evaluation of the resource's strengths, elaborating on the author/creator's objectives and how well those objectives were achieved.
- Recommendations about the audiences that might find the resource useful, why, and how you would suggest the resource be used. Please be sure to address its potential contribution to the field. For any gaps in the resource's content, rather than framing as weaknesses, consider offering suggestions about other works or perspectives that could be used in tandem with this resource. In other words, of what conversations in our field could this resource be an important part?

Inclusive of the text of the review itself, media reviews should typically be between 750-1250 words. Media review submissions should also be accompanied by a complete APA reference for the resource reviewed as well as references for any additional citations in the text of the review.

Manuscript Preparation

All manuscripts must be prepared according to the standards of the APA publication manual (7th edition). Authors submitting manuscripts to the JPED will be well-served to thoroughly understand Section 12 of the APA manual where the publication process is described as preparing for publication, understanding the editorial publication process, manuscript preparation, copyright and permission guidelines, and during and after publication.

When submitting a manuscript to the JPED, follow these specific guidelines:

- Submit *one* complete Word document (.doc or .docx) that contains all manuscript components (i.e., title page, abstract, body, references, tables/figures).
- Provide a separate cover letter (APA 12.11) asking that the manuscript be considered for publication and providing any other information that would be useful to the editors.
- Manuscripts should have one-inch margins in 12-point Times New Roman font. Double space the abstract, body, and references; single space the title page and tables/figures.
- The title (APA 2.4) should not exceed 12 words.
- Place the abstract (maximum 250 words, APA 2.9) on page two (following the title page). Include three to five keywords (APA 2.10) below the abstract (does not apply to book reviews).
- Use APA Section 1, Scholarly Writing and Publishing Principles, related to types of articles and papers; ethical, legal, and professional standards in publishing; ensuring the accuracy of scientific findings; protecting the rights and welfare of research participants and subjects; and protecting intellectual property rights.
- Use APA Section 2, Paper Elements and Format, to align paper elements, format, and organization. Indent paragraphs (APA 2.24), and adhere to heading levels (APA 2.27) to organize the manuscript.
- Content and method are important. Use APA Section 3, Journal Article Reporting Standards, related to overview of reporting standards; common reporting standards across research designs; and reporting standards for quantitative, qualitative, and mixed methods research. Please refer to Madaus et al. (2020) for research guidelines for higher education and disability where instructions are provided for describing samples and study locations, and appropriately selecting and describing the methodologies employed.
- Writing is important, carefully edit and proofread the manuscript.. Use APA Section 4, Writing Style and Grammar, related to continuity and flow, conciseness and clarity, verbs, pronouns, and sentence construction. Use APA Section 6, Mechanics of Style, related to punctuation, spelling, capitalization, italics, abbreviations, numbers, statistical and mathematical copy, presentation of equations, and lists. Refer to APA 6.32-6.39 to properly report numbers expressed as numerals or in words.
- APA Section 5, Bias-Free Language and Guidelines provides guidance for writing about people, identity, and other topics wherein bias in writing is common. Although generally useful, this section's discussion of disability is reductive. Authors should follow their best judgment in this regard. Additional guidance is provided below.

- Regarding language related to disability, authors must determine the type of wording that is best for their given study - typically person-first or identity-first language. (See the "AHEAD Statement on Language" for details about these options and for additional resources on the topic.) We encourage authors to be explicit about their choices in the manuscript, informing readers about the rationale for their choice of language. When research or program participants are disabled and it is possible to determine their preferences, the preferred language of those individuals should be prioritized ahead of researcher or practitioner decisions. Additionally, aligned with the AHEAD statement in terms of outdated language use, we discourage "the use of outmoded euphemisms such as 'special needs,' 'physically or mentally challenged,' differently- or alternatively-abled, etc." unless there is an explicit reason, such as referring to past practices or terminology to learn something valuable from it for current practice.
- Use APA Section 8, Works Credited in Text, related to general guidelines for citation, works requiring special approaches to citation, in-text citations, and paraphrases and quotations. All citations must be referenced, and all references must be cited; avoid undercitation and overcitation (APA 8.1). Double-space and block quotations of 40 words or more (APA 8.27).
- Provide a complete reference list (APA 2.12) rather than a bibliography following the manuscript. References should be formatted consistently, following APA examples in sections 9-11. Please be sure to carefully edit references as manuscripts will not be sent out for review until they conform to APA guidelines and references represent the most common challenge point for submitted manuscripts.
- Mask any information that could reasonably reveal the identity of the authors to the reviewers. For example, citations that would identify an author should be replaced with "citation omitted" and the corresponding reference removed from the reference list (APA 8.3). This does not mean that all author citations must be removed, only those that are likely to reveal an author identity by being self-referential. Those which are "in press" or "under review" should also be removed as they are typically from an author. Mask institutional identities in manuscripts if they are likely to reveal the institution of an author. Please do not use a title that can be searched in order to find a previous iteration of the work (e.g., a conference presentation, a dissertation). We will ask you to unmask these elements of your manuscript subsequent to acceptance. These examples are not exhaustive, but it is the author's job to minimize any information that can reveal author identity.
- Tables and/or figures, following references, are in black and white only, and must conform to APA standards in APA Section 7. Follow examples related to table lines. Align numbers in tables to the single digit or the decimal. If tables and/or figures are submitted in image format (JPEG, PDF, etc.), an editable format must also be submitted along with a text description of the information depicted in the table/figure. This will be provided as an alternate format in the electronic version of the JPED, making tables/figures accessible for screen readers.
- In submitted manuscripts, all tables and figures should be placed at the end of the manuscript with a corresponding indication in the text, "< Place Table/Figure X approximately here>". During layout editing, tables and/or figures should will be embedded in the text either as noted in the manuscript or after its first mention in text (APA 7.6)
- Do not include footnotes, instead, incorporate footnote narratives into the manuscript.
- Because of the importance of articles including practical implications for disability services educators in colleges and universities, authors will be well-served to include in the discussion a multiple paragraph subsection where practical implications for disability services educators are discussed.
- Before submission, ensure that the manuscript is ready by using strategies, examples, and checklists provided by APA:
  - Sample papers (end of Section 2, pp. 50-67).
  - Strategies to improve your writing (APA 4.25-4.30).
  - Tables checklist (APA 7.20).
  - Figure checklist (APA 7.35).
  - In-text citation styles (Table 8.1).
  - Examples of direct quotations in the text (Table 8.2).
  - Reference examples (section 10 and 11).
  - Manuscript preparation (APA 12.9-12.13).

Manuscript Submission

Before you decide to submit your manuscript, authors are encouraged to read past articles in the JPED to better understand the types of submissions we print. All submissions will be through the Scholastica online system, easily accessed by clicking the "Submit via Scholastica" button on the JPED webpage.

- If this is your first time using our journal management system, Scholastica, you can sign up and create a free account. Directions for creating an account and logging in can be found in the Scholastica Author Guide.
- Enter your manuscript title, then click "save and continue." After this page, if you have to pause and come back to complete this submission sometime in the future, you may do so by going to your "My Manuscripts" page and selecting this submission.
- Next, you can add the "metadata" for your manuscript (title, abstract, keywords), author information, and manuscript files. For all JPED submissions, we ask that you include:
  - A cover letter (APA 12.11)
  - A masked version of your manuscript
  - Any additional tables, graphs, and/or supplementary materials
- Once you've reviewed your completed submission form, you can "confirm and submit" and check "I understand" before submitting. You will not be able to make any changes to your manuscript once you click "submit manuscript."

For more detailed information about submitting manuscripts in Scholastica, please refer to their Submitting a Manuscript guide. If you have any questions, please contact jped@ahead.edu.

Upon Acceptance for Publication

For manuscripts that are accepted for publication, we will request additional information. Once your manuscript has been assigned to a future issue, Valerie Spears (JPED Editorial Assistant) will contact the corresponding author to request: (1) a 40-50 word bibliographic description for each author; (2) and a signed copyright transfer form (Valerie will send templates for both); and (3) approval of galley proofs of the article ready for publication. Galley proofs will include required response to specific copyediting suggestions. Authors may be contacted prior to this step to respond to copyediting, depending on the level and nature of the edits. Although JPED reserves the right to edit all material for space and style, corresponding authors will be notified of changes.

Special Issues

The JPED occasionally publishes special issues which feature a series of articles on a particular topic. The JPED welcomes ideas for special topic issues related to the field of postsecondary education and disability or disability studies. The issue can be formatted as a collection of articles related to a particular topic or as a central position paper followed by a series of commentaries (a modified point/counter point). If the issue has the potential to be valuable to the readership of the JPED, modification to the journal's content or format may be possible. Authors who wish to discuss a special issue should contact the editorial team at jped@ahead.org.

Publication Information

JPED is published four times a year in multiple accessible formats (e.g., printed, DAISY, MP3, Text only, PDF), and each issue is distributed to nearly 4,000 individuals. All back issues are archived and accessible to all on the AHEAD website. These author guidelines are also available online.

JPED's acceptance rate is moderately selective, accepting approximately 20% of all submitted manuscripts during the last calendar year. JPED is indexed in EBSCO, ERIC and Emerging Sources Citation Index. At present, JPED does not have an impact factor but is working with Clarivate Analytics' Social Sciences Citation Index to obtain one.

Editorial and Review Teams

The editorial team is composed of Ryan Wells, Valerie Spears, Richard Allegra, and Cassie Sanchez. The review board is composed of more than 70 international disability scholars and disability services educators with expertise on disabled college students, disability services, disability studies, and research methodologies.

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