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# Journal of Postsecondary Education and Disability

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# Faculty Development and Service Provision: Postsecondary Priorities for Deaf and Hard-of-Hearing Students

**Nicole Genser<sup>1,2</sup>**  
**Michelle Veyvoda<sup>1</sup>**  
**Jeffrey Levi Palmer<sup>2</sup>**  
**Carrie Lou Bloom<sup>2,3</sup>**

## Abstract

While faculty impact on students' utilization of social and navigational resources is generally well documented, research on this experience for disabled students is limited. The purpose of this research study is to explore faculty priorities and understanding of service provision for deaf and hard-of-hearing (DHH) students to address the discrepancies revealed through review of the literature, as well as the uncertainty gap revealed among faculty in a preliminary study when it comes to their role in this process. A qualitative study was conducted to gather the perspectives of 18 faculty members at a postsecondary institution. A scenario-based approach was used in which faculty read about a situation and expressed their thoughts and action steps based on guiding questions. Three overarching themes emerged: faculty willingness, building a student-faculty partnership, and request for institutional support. Findings indicate faculty are willing to accommodate and support DHH college students but are looking for institutions to lead the way. These results offer implications and points of consideration for faculty and their institutions in ensuring positive postsecondary outcomes for DHH students.

*Keywords: higher education, faculty development, deaf, accessibility*

In contemporary discourse, discussions surrounding accessibility often revolve around legal requirements and compliance standards, particularly in the context of the Americans with Disabilities Act (ADA). While compliance is certainly a crucial step in fostering inclusivity, a broader perspective reveals that true accessibility goes beyond adherence to legal mandates (Cawthon et al., 2020). Research underscores the limitations of a compliance-centric approach, highlighting the need for comprehensive strategies that not only accommodate but also empower diverse populations. Models like Universal Design for Learning (UDL) advocate for a paradigm shift toward proactive measures that prioritize inherent accessibility over reactive accommodations. By fostering such an inclusive approach, colleges can better support their students irrespective of background or abilities (Cawthon et al., 2020). Cawthon et al. (2020) further detail access as a multifaceted framework institutionally woven and manifested in actions and attitudes of those on campus including faculty members and campus staff.

College students rely on various sources of support and resources to effectively navigate and access their campus environments. In doing so, they can optimize their college experience and achieve their academic and personal goals. Many internal and external factors are related to optimal support service provision, internal factors coming from the individual and external factors coming from the institution (Cho et al., 2021; Martin, 2009; Yeager et al., 2022). There exists a complex continuum of shared responsibility for ensuring accessible learning; it is not the sole responsibility of one group, but of the whole institution (Foster et al., 1999; Moriña et al., 2020; Palmer et al., 2019). Disabled students have reported that they have difficulty building relationships with disability support staff due to perceived attitudes and minimal knowledge about the experience of their individual disability (Cole & Cawthon, 2015; Powell et al., 2014). Campus groups, including faculty, are often unaware of how they contribute to barriers to accessible learning and could improve (Palmer et al.,

<sup>1</sup> Iona University; <sup>2</sup> National Deaf Center on Postsecondary Outcomes; <sup>3</sup> University of Texas at Austin

2019). This paper aims to provide a lens that shows how adopting a proactive approach to accessibility requires a fundamental shift in mindset, particularly among educators. Rather than adhering to their role solely as meeting minimal compliance, faculty members are encouraged to embrace higher expectations that enable the creation of learning environments that foster equitable opportunities for all learners.

## Literature Review

### Faculty Role in Student Success

The success of the student is, to an extent, contingent on the awareness and willingness of faculty to access and use services available to them, as well as on the quality of interactions between faculty and their students (Cawthon et al., 2014; Cole & Cawthon, 2015; Cook et al., 2009; Cho et al., 2021; Garberoglio et al., 2022). Recent studies have found that postsecondary faculty are willing to provide accommodations to disabled students (Cho et al., 2021; McCarron, 2020), but are influenced by a variety of factors, such as their experience with disabled students, how familiar they were with accommodations, and whether they felt supported in the accommodations provision process. Students who had more interaction with faculty with positive attitudes were more likely to feel comfortable with self-disclosure compared to those who more often experienced faculty with negative attitudes (Cole & Cawthon, 2015). Faculty have a role in providing the students with accessible and inclusive learning opportunities apart from accommodations provision (Moriña et al., 2020; Palmer et al., 2019; Schley & Marchetti, 2020). Disabled students often turn to faculty for social support and advice, helping them develop self-advocacy skills (Yeager et al., 2022). Faculty also inform disabled students about their rights when access is inadequate, such as sharing accessibility service details in syllabi (Yeager et al., 2022).

Faculty have previously shared that they would feel better prepared to serve disabled students if they received training from their institutions (Moriña et al., 2020). Implementing faculty training improves overall campus attitudes, which impacts disabled student success (Murray et al., 2009; Palmer et al., 2019; Powell et al., 2014). Training should cover legislation, disability rights, culture, varied communication approaches, and inclusive teaching methods (Bunbury, 2020; Moriña et al., 2020; Murray et al., 2009), as well as support channels within institutions for accommodating disabled students (Moriña et al., 2020). Aside from training provided by institutions, these areas can be improved by encouraging faculty

to leverage their own peer networks, fostering a sense of community among faculty and other institutional partners and encouraging interdisciplinary collaboration (Marchetti et al., 2019). The improvement of campus attitudes and pedagogical adjustments for individual disabled students has the potential to benefit all students in the classroom (Bunbury, 2020).

### Deaf and Hard-of-Hearing Students in Postsecondary Settings

Over the past 25 years, there has been an increase in enrollment of DHH students in higher education. Of all college students enrolled during the 2015-2016 academic year, about 19.5% had a disability (U.S. Department of Education, 2019). Among those students, 1.3%, or about 200,000, are DHH (Garberoglio et al., 2019). This figure could be an underestimate as the vast majority of students are not documenting their disabilities with their colleges (Postsecondary National Policy Institute, 2022). With the increase of enrollment of DHH students, colleges need to be ready to accommodate these individuals especially due to the barriers that students encounter when transitioning to and immersing themselves in a postsecondary level environment (Cawthon & Leppo, 2013; Cawthon et al., 2014; Cawthon et al., 2015; Madaus & Shaw, 2004; Richardson et al., 2010).

Unlike in secondary education, where the school takes the initiative in identifying and providing support for disabled students, postsecondary students are required to self-advocate, disclose their disability, request services, and communicate their specific needs to the disability services office at their institution (Cawthon & Leppo, 2013; Powell et al., 2014). When students enter college, there is variability in their knowledge of available accommodations and their willingness to disclose their disabilities (Cawthon & Leppo, 2013; Powell et al., 2014). Reasons students refrain from self-disclosure include feelings of guilt or feeling like an inconvenience to the system. They also refrain if they feel that they are doing well academically; they wait until their academic success is under threat to disclose their disability (Cawthon & Leppo, 2013; Grimes et al., 2020). It is possible that the importance of support services is not solely reliant on whether they are available, but also on the students' experience of the services they receive and what they are aware of that works best for them (Cawthon & Leppo, 2013; Cawthon et al., 2015). Many DHH students use accommodations for the first time in college, and many attempt to get by without them (Cawthon & Leppo, 2013; Palmer et al., 2019). DHH college students come from diverse backgrounds related to their educational experiences,

communication modality, and experiences of support services (Myers & Taylor, 2000). Considering various student characteristics can better inform development of policies and services in making them more inclusive towards all DHH students, which is important to achieving educational equity (Palmer et al., 2019).

It has long been established that for DHH students to succeed in postsecondary environments, solely relying on accommodations is not enough. Other aspects include connecting with peers and cultivating a sense of belonging (Balogun, 2014; Cawthon et al., 2015; Johnson, 2016; Marschark et al., 2018; Schooler et al., 2021; Wolsey, 2020). DHH students express a desire to find a sense of belonging and connection among their peers, consistently citing social interactions as an important part of their college experience (Johnson, 2016; Schooler et al., 2021). Faculty attitudes and efforts can also contribute to feeling a sense of being included (Balogun, 2014; Schooler et al., 2021). Barriers to academic achievement and social integration lead to feelings of frustration and exclusion for DHH students that tend to dominate how they perceive themselves and their postsecondary experience (Puzio, 2021; Wolsey, 2020).

Many studies have explored how DHH students lean into their knowledge, skills, and resources valuable in achieving postsecondary success, including student relationships and interactions with faculty (Cawthon et al., 2016; Johnson et al., 2020). Faculty have been established as having a role in the reduction of institutional barriers for the student (Cawthon et al., 2016; Johnson et al., 2020; Listman & Dingus-Eason, 2018). Mentorship provided by faculty can help DHH students to gain skills needed to maneuver through their institution, which is not designed with them in mind (Listman & Dingus-Eason, 2018). Faculty who serve as mentors or role models provide similar opportunities for DHH students to access their social networks and navigate their institutions (Cawthon et al., 2016).

Faculty, despite an established role in the college experience for DHH students, have inconsistent views on where the responsibility for student access originates and minimal confidence in how to address DHH student needs (Cook et al., 2009; Foster et al., 1999; Stinson et al., 1996). Students have reported misunderstandings from faculty regarding facilitation of effective communication access, including how to interact with sign language interpreters and how to use assistive listening systems (Garberoglio et al., 2022; Martin, 2009; Palmer et al., 2019). While DHH college students reported that faculty were likely to support individual differences and help alleviate access challenges, many faculty did not alter their teaching

styles to accommodate student preferences (Palmer et al., 2019). Few DHH students felt welcome in engaging in conversations with their faculty (Garberoglio et al., 2022). Even though faculty have been found to demonstrate a high willingness to accommodate deaf students (Cho et al., 2021; Cook et al., 2009; McCarron, 2020), there is scant evidence that faculty are applying this to practice by doing things like providing notes ahead of time or altering their teaching styles (Palmer et al., 2019).

### **Purpose of the Current Study**

Faculty report willingness to accommodate disabled students, but the evidence suggests that this action does not always manifest (Cho et al., 2021; Cook et al., 2009; Garberoglio et al., 2022; Martin, 2009; McCarron, 2020). While faculty are clear about their willingness to help, they often do not understand their responsibility in ensuring student access and are not perceived by students to always be helpful (Cho et al., 2021; Cook et al., 2009; Foster et al., 1999; Garberoglio et al., 2022; McCarron, 2020; Stinson et al., 1996). Further research is needed to explore faculty priorities and understanding of service provision, followed by the implementation of organizational support and recommendations (Cook et al., 2009; Lang, 2002; Martin, 2009; Wolfe & Woodrick, 1997). Also needed is knowledge of current professional development for faculty and any resources provided to them, as well as who they deem to be responsible for provision of services (Lang, 2002; Wolfe & Woodrick, 1997).

The purpose of the current study was to address the discrepancies revealed through review of the literature, as well as the uncertainty gap revealed among faculty in a preliminary study when it comes to their role in supporting DHH students. It sought to address the following research questions:

1. How do postsecondary faculty reveal their perception of their responsibilities in supporting DHH students through responding to a scenario?
2. What resources and collaborations would faculty leverage from their institution to ensure optimal access for their DHH students, as shared by scenario responses?

### **Methodology**

A preliminary survey was conducted to get a sense of faculty knowledge level about DHH students and how they navigate being in college. All faculty were knowledgeable about challenges that DHH students face, with 89% of faculty being able to name three

or more challenges. Challenges mentioned by faculty were grouped into sub-categories, as shown in Table 1. Most faculty were also familiar with accommodations that can support students in navigating these challenges, with 74% of those naming one or more (Table 1). Despite the familiarity with these areas, a global uncertainty was expressed by 94% of faculty when it came to their role in the student support process and in recognizing whether the college was an accessible environment for a DHH student. More than half of the faculty sought greater support from the college in ensuring campus access for their DHH students.

Data from the preliminary survey revealed that faculty know about barriers faced by DHH students, and accommodations they utilize in overcoming those barriers, but little was revealed about what faculty would do and how they would leverage their resources in supporting that student. To dive deeper into this area, a scenario-based qualitative study was designed to explore faculty perspectives on navigating, acquiring, and implementing support services. Their insights were explored using an online survey prompting faculty reflection on a presented hypothetical situation. The following sections will address participants and recruitment, context of setting, instrument, procedures, and data analysis.

### Participants

There were 18 participants in this study, conveniently sampled via the use of a recruitment email sent to all faculty members at a small, private northeastern university. Participant characteristics were acquired, including their professional ranking at the university and whether they have ever knowingly had a DHH student in their class (Table 2). Since participants are faculty members only at a small university, there was the slight risk of participants being identifiable depending on the specificity of demographic information asked of them. To protect the privacy of the faculty members, they were not asked to identify the discipline that they specialize in, their affiliated school, and any other demographic items other than their ranking.

### Setting

Participants were sampled from a small, private university located in the northeastern United States. There are roughly 4,000 total students enrolled, comprised of about 3,300 undergraduate and about 700 graduate students, and a student to faculty ratio of 14:1. Mission-centered and service-minded, the college makes known their commitment to assuring non-discrimination for all to facilities, programs, activities, and any other services. It is not uncommon

to see faculty actively engaged on campus, attending sports games, supporting student research, and being heavily involved in student clubs and activities.

The accessibility resource center at this institution, consisting of a director and a coordinator, works to provide equal access and opportunity for enrolled students. In recent years, the center underwent a transformation including a name and leadership change. They started to be more visible and integrated on campus. Provision of support for students ensures access to facilities and programs on campus. Due to federal law requirements, students who need accommodation must contact the university accessibility office to initiate their request for services. The accessibility resource center webpage cites information for the university community about academic and residential accommodations, laws and guidelines related to disability documentation, grievance procedures, and resources for faculty members.

### Instrument

The instrument used in this study was designed by the author following conduction of a preliminary survey that investigated faculty knowledge and awareness of DHH student experiences. The goal of the current study was to explore how faculty apply the knowledge they were revealed to possess, including how they would support their student, what resources they would seek, and with whom they might collaborate to ensure their student's access and success. Scenario-based approaches, sometimes called a vignette, can be used by providing a brief hypothetical situation to ask participants about their thoughts and what they might do (Barter & Renold, 1999; Sampson & Johannessen, 2020). Using a scenario in research widens the study scope to include the context in a given setting (Ramirez et al., 2015). Faculty were asked to review and respond to a fictional scenario in which their DHH student perceived newfound struggle in class and believed the hearing difficulty to be the root cause and provided with guiding questions to consider in formulating their responses (See Appendix). The instrument used was reviewed and approved by the campus Institutional Review Board (IRB).

### Procedures

Though the most effective method of qualitative survey delivery is face-to-face (Macdonald & Headlam, 2008), data collection was conducted virtually due to the COVID-19 pandemic. While semi-structured interviews were originally intended, questions were adapted into an open-ended survey. This survey was administered through Qualtrics, an online platform. Faculty were given an open text box to respond

**Table 1***Preliminary Data: Reported Challenges and Accommodations*

<b>Category</b>	<b>Codes</b>	<b>Participant Count</b>
Challenges	Total: Challenges	19 (100%)
	Understanding	15
	Participation	12
	Social	12
	Presentation	9
	Lack of peer initiative	7
	Classroom design	6
	Pace of instruction	3
	Noise levels	3
Accommodations	Total: Accommodations	14 (74%)
	Notetaker	8
	Transcription services	7
	Assistive listening devices	4
	Interpreter	4
	Notes in advance	4
	Recording lectures	3
	Testing accommodations	3
	Subtitles/captioning	2
	Tutor	2
	Alternative assignments	1
Preferred seating	1	

**Table 2***Participant Characteristics*

<b>Characteristics</b>		<b>Participants (n=18)</b>
Professional Ranking	Associate	8 (44%)
	Assistant	5 (28%)
	Adjunct	0 (0%)
	Visiting	1 (6%)
	Other	3 (16%)
	Unspecified	1 (6%)
Knowingly had a deaf/hard-of-hearing student during career?	Yes	12 (67%)
	No	6 (33%)

to the presented case and were free to respond at their own pace and discretion.

### Data Analysis

Participant responses were analyzed by means of thematic analysis. Thematic analysis is useful to summarize key findings of large datasets and organize the thoughts of participants (Braun & Clarke, 2006; Nowell et al., 2017). Similar to the six-phase model presented by Braun and Clarke (2006), the current study used a seven-step process to maintain structure in approaching the data. Analysis was conducted by the author and a research assistant. Manual coding from Qualtrics export was utilized for steps one to five and subsequent steps involved NVivo (12.1.0). First, each coder read all responses individually to get familiar with the data. Next, they read through the responses again, keeping note of themes and similarities between responses and developed independent code lists. In the third step, they met to compare the independent coding lists and negotiated a final coding list that would be used to code all the data. The fourth step involved the author and research assistant completing a trial coding of one agreed-upon participant as a means of checking the use of the negotiated code list. Fifth, they met again to compare their trial coding in which they agreed on 85% of the coding; they resolved their differences in coding and made minor changes to their full coding list. Once the coding list was agreed upon, participants' responses were uploaded into NVivo for analysis. In step six, the author and research assistant independently coded the remaining participant responses. In the seventh step, analysis results were compared resulting in an inter-rater reliability of 95%. Discrepancies were discussed and resolved.

### Author Positionality

The authors of this study are individuals with diverse experiences and perspectives related to deafness. The team included the following perspectives: deaf hearing aid user and audiology doctoral candidate, a signing speech pathologist and postsecondary educator, Deaf native signer and higher education researcher, and a native ASL signer and certified interpreter including in higher education. Additionally, the team has experience providing technical assistance to colleges and universities in providing accommodations and support to deaf students. Collectively, we approach the research with the belief that access extends beyond minimal compliance to encompass a holistic view of inclusion and participation for deaf and hard of hearing students. Our diverse backgrounds allow us to analyze results through multiple,

varied perspectives, ensuring a comprehensive understanding of the issues at hand. We are committed to advocating for meaningful access and inclusivity in educational environments, drawing from both our firsthand experiences and professional expertise to inform our work. By acknowledging our positionalities, we strive to mitigate any potential biases and enhance the validity and depth of our findings.

## Results

Themes were derived through a process of open coding and thematic analysis in which data were reviewed, codes were developed, and patterns identified. Three overarching themes emerged: faculty willingness, building a student-faculty partnership, and request for institutional support. Findings collectively address each research question, the first being about how faculty perceive their responsibilities in providing access for DHH students, and the second regarding what resources or support they would leverage in doing so. Themes are summarized and sample representative quotations are provided.

### Willingness

The willingness of faculty to support their DHH students was highly apparent. The willingness of faculty was noted any time they expressed that they would take initiative to support the student or to learn more about how to do so. Actions they were willing to take included providing accommodations, adapting teaching methods, fostering inclusive classroom environments, and seeking professional development to enhance their knowledge and skills in working with deaf students. The willingness of faculty to support DHH students was represented largely through their proclivity to engage in self-education. This willingness included not only the desire to learn more about the experiences of being DHH but to seek out this information themselves. They identified multiple resources they would utilize to learn more about best serving DHH students, such as searching online for reputable websites and peer-reviewed resources. They expressed a desire to know what has worked best for others in similar positions. Faculty also wanted to know more about services specifically available to DHH students at their college. For example, one respondent explained, "I would reach out to the accessibility services office and be hopeful they could support me. I would want to know what services are made available to deaf and hard of hearing students at the college."

The willingness of faculty was also largely defined by faculty commitment to self-adjustment. Re-

sponses from faculty members affirmed that they were motivated to modify their own course delivery to best suit the student. They emphasized the importance of effective communication access in the classroom. As detailed by one faculty member, rather than expecting DHH students to simply figure it out, they preferred an introspective approach reflecting on their course delivery and curriculum: “For my own class, I would try to work step by step to root out the problematic communication methods that I am failing to see and look for ways to change them structurally or pedagogically.”

Finally, the willingness of faculty was made apparent in their clear recognition of the impact of legislation on student access and that their DHH students are entitled to the accommodations they request. Faculty expressed an inclination to self-modify in accordance with public policy, in addition to previously mentioned best practices. For example, one faculty member described the following:

I would read some of the published research and seek information about public policy related to hearing loss and the academic environment to help me better understand how I am expected to help students with hearing loss and try to identify ways to improve the ways that I am accommodating these students.

Faculty also wanted to ensure that students were aware of the implications of the law on their rights and take time to put students in contact with appropriate campus resources to ensure their rights were effectively protected. One faculty member shared:

I would make sure she is aware of the ADA and what it guarantees her. I would put her in contact with the accessibility office, but also with another faculty member, given that accessibility issues are sometimes advanced at colleges for the purposes of avoiding the penalties of non-compliance.

That faculty prioritized students being aware of their rights and with whom they should be in contact emphasizes their initiatives as being student-centered. Faculty also recognized that accommodations should be considered in terms of their quality by suggesting they would seek out ways to improve how they are implemented. They pointed out that optimal student access is more than provision of accommodations, which demonstrates their flexibility to alter their pedagogy.

## **Centering Deaf and Hard-of-Hearing Student Experiences**

Participants expressed the importance of working with the students and how they would collaborate with them to ensure effective support implementation. They talked about the importance of student feedback, increasing their understanding of their student needs, and incorporating that in their provision. To faculty, centering their students' experiences helped them build a relationship with the student. They describe that building relationships meant learning from the student, offering them practical and emotional support, and later following up with the student. Faculty felt an important part of doing this was a sort of self-adjustment and being flexible to alter their practices for the student:

As soon as I learned from the student what she needed for class, I would make the changes within my power and would work with the accessibility services office to make sure she received any accommodations she needed.

Faculty, specifically those who assume the role of being the student's academic advisor, felt a critical part of centering their students' experience was to get a fuller picture of their academic experience. One faculty member noted, “Part of my personal philosophy regarding my role as an academic adviser to my student advisee is to get to know them well enough that I understand their schedule and their instructors in those classes.”

Being cognizant of their own actions and asking for student feedback was important to faculty as well. As previously stated, they expressed commitment to self-modification of course delivery and curriculum. Particularly, they believe these changes should be made not based on a general understanding of supports utilized by DHH students, but rather the supports that their individual DHH student would best benefit from. One faculty member explained, “I would ask the student to detail the accommodations that she needs from me and others in order to best help her. I would also ask her to remind me whenever I fail to accommodate her needs.”

The faculty valued following up with the student, recognizing the importance of checking in to see that the plan in place was actually working. They demonstrated understanding how solutions are not always static in nature and that follow-up is critical to verify that existing accommodations are still effective. One participant said of ensuring their student's success:

Once these initiatives were established and carried out, I would work with the student to establish a process for the student to access me more readily. I would not let this “issue” sit in the past, rather I would try to “keep a very close” eye on the on-going success of this advisee.

With that, faculty emphasized allowing the student to lead and guide the process, saying they would like to “meet with the student regularly until such time they did not expressly need [me] as frequently.” This speaks to the value of allowing students to leverage their own support systems and make their own decisions.

In addition to practical support, such as requesting and implementing accommodations, faculty noted their role in supporting students emotionally. They felt that students should “experience empathy” and “be praised for self-advocacy,” recognizing how difficult it can be for students to assert what they need, for what may often be their first time. One participant shared that prior to practical support, they would begin with providing this emotional support: “First, I would tell the student that she has done the right thing in bringing this to my attention right away, and that she should not feel bad about needing accommodations in her college classes.”

Faculty are eager to build relationships with DHH students. They recognize that doing so would ensure that the student receives support and campus access of the highest quality and that the method for doing this entails the centering of their DHH students’ experiences.

### **Request for Institutional Support**

Faculty expressed the desire for more support from their institution, be it the disability services office or college administration. Through this, they identified what role they feel the institution has in implementing student support. One participant expressed that the institution should have an office “to help maintain the appropriate learning environments for all students and advise faculty on how to create them when a student with an accommodation takes one of their classes.” The identified responsibilities of the institution, as described by this participant, are two-fold: an obligation to the learning environment for the student and to supporting faculty. Where it concerns the student, faculty felt that the office exists “to assure all students have the best opportunity for success.” Conversely, faculty did not feel that such offices on campus were there to support them. One participant reported, “I have not found the college to provide very many resources to me as faculty member to help meet the needs of students with disabilities.” Another elaborated on this point and expressed

that the college should be providing them clear guidance on providing accommodations and clarify their expectations of faculty in this process:

I think more training should be given to faculty so that we are aware of the various services available to students, what the process is for giving these students access to these accommodations (i.e., what procedures need to be followed), what the expectations of faculty are, and what the expectations of the students are.

This position was confirmed by another person who reported that they do not feel “adequately trained in how to address the various needs of students who are deaf or hard of hearing.” It is clear that these faculty thought the college should provide more guidance for them to feel more prepared to support students requesting accommodations, specifically DHH students. A potential solution was provided by one participant: “I would like to have a professional in the field have a workshop on campus with students to have a discussion on best practices both in and out of the classroom.” This finding emphasizes that faculty not only want to be adequately equipped to support DHH students but want to learn from those qualified to prepare them and learn how to support students based on best practices.

Overall, participants did not get the sense that the college was completely hands-off, but rather that they try but fall short. One faculty member acknowledged student resilience in light of this: “I think most students can make it work, but that does not mean that the college has done as much as it could.” Faculty acknowledge that supporting students in receiving accommodations is a campus-wide effort, including more than just themselves and the disability services office. Other campus departments they felt were responsible included the campus counseling center, the speech and hearing department, campus office of student life and activities, and the administration overall. For instance, faculty mentioned that the division of student life could collaborate on the matter of supporting students outside the classroom. One participant said that “the social issues would be harder for me to address. I would work with the office of student life and accessibility services to try to make sure the student had full access to the social life of the college.”

To address the gaps in support, one faculty member imagined the kinds of improvements that could be made: “The College can do better in this area, but it requires rethinking the normal routine, its expectations of faculty, and how it allocates its resources.” Faculty also shared that they feel overwhelmed by

their workload and concluded, “Faculty need reduced teaching loads to be able to have more time to innovate and create course materials that are 100% accessibility compliant.” Faculty emphasize that in order for them to best uplift and support their DHH students, or any student, they need to be equipped with the best practices for doing so, including clear expectations and space to meet those placed onto them.

## **Discussion**

A scenario-based qualitative study was conducted to gather the perspectives of 18 faculty members at a postsecondary institution. Overall findings revealed that faculty possess a willingness to support their students and adapt their teaching methods, which aligns with existing literature (Cho et al., 2021; McCarron, 2020). Additionally, the survey responses revealed that faculty consider it critical that support be individualized and student-centered. Findings indicate that faculty members recognize that they have a role in supporting deaf students, and they express their willingness to take certain actions to fulfill that role. By expressing their willingness to undertake these actions, faculty members demonstrate their commitment to supporting the needs of DHH students in their postsecondary journey. Furthermore, addressing the second research question necessitates consideration of the finding that faculty desire more support from other institutional figures. Faculty believe that colleges should provide training and resources to help them understand their role and how to effectively support disabled students, which also aligns with existing literature (Bunbury, 2020; Moríña et al., 2020; Murray et al., 2009; Powell et al., 2014). This finding indicates that faculty are self-aware and recognize the need for additional knowledge, skills, and tools to ensure inclusive support for DHH students.

Throughout this section, results will be reviewed through the lens of faculty, students, and the institution. Recommendations will be provided, born directly out of the thematic analysis of faculty responses, context provided in the literature, and the perspectives of the authors of this paper who themselves have disabilities and have navigated higher education.

### **Implications for Faculty**

Through review of the data from this study, it is apparent that faculty report themselves as highly willing to accommodate their DHH students. As previous research suggests, there is a discrepancy between what faculty say they will do and what students perceive is being done (Garberoglio et al., 2022; Palmer et al., 2019). Given this discrepancy, one should be

wary to claim faculty as highly willing and consider it a portrayal of faculty openness. Faculty identified multiple important facets to supporting students, consistently emphasizing the need to provide accommodations and discourse that is student-centered. What faculty describe that they would do is consistent with prior literature, such as adjusting their teaching styles, supporting students in and out of the classroom, making themselves available to the student, and having an understanding of DHH student communication needs (Garberoglio et al., 2022; Martin, 2009; Palmer et al., 2019). Faculty emphasized building connections with their DHH students and maintaining a mutual understanding and partnership between themselves and the student. They also felt that their campus should provide more training in how to address the needs of DHH students and create an inclusive, accessible learning environment.

The primary recommendation for faculty is to adopt a multi-pronged approach to supporting DHH college students, recognizing diverse needs and strengths within this population and knowing how to address each student individually. To better meet DHH students where they are at, faculty might consider becoming familiar with the needs of DHH students, DHH culture and perspectives, and the barriers that institutions of higher education pose for DHH students. This is possible through means including but not limited to engaging in educational opportunities, connecting with fellow faculty members who have had DHH students in the past, and, when appropriate, learning from faculty members who themselves are DHH or have other disabilities.

Faculty should work to create an inclusive environment that, in addition to reducing communication barriers, fosters a sense of community. With increased access to communication, students can more effectively engage in group work and connect with their peers. An inclusive classroom environment helps college students thrive academically, but also socially and, therefore, emotionally. Part of providing an inclusive learning environment also requires maintaining an ongoing open line of communication with the student. This includes regular check-ins with the students to ensure that accommodations are effective for them and that they feel comfortable in the classroom. It is also a space for DHH students to share their feedback on accessibility issues they may be experiencing and to be involved in the decision-making process for addressing them. Faculty need to be receptive to this feedback and leverage their institutional support figures to provide their DHH students with equal opportunities to achieve postsecondary success. It is imperative that faculty also consider proactively

seeking out training and resources and reaching out to their campus office. Faculty have made their openness to accommodate students clear but more stands to be known about how we can motivate them to put these ideals into practice.

### **Implications for Institutions**

Supporting deaf students, or any disabled students, should not be the sole responsibility of faculty members. It requires a campus-wide collaboration and commitment to ensure a truly inclusive and supportive environment for all students. Past studies have shown that there are many factors that influence faculty willingness to accommodate disabled students (Cho et al., 2021; McCarron, 2020). Accommodating DHH students and ensuring their postsecondary success is a shared responsibility, including both disability support personnel and college personnel (Cawthon et al., 2014; Foster et al., 1999; Palmer et al., 2019). It is important to recognize that while faculty may be willing and open to supporting their DHH students, they may also require additional support themselves to create an inclusive space. Motivating faculty to implement inclusive practices and accommodations for DHH students requires a multi-step approach including providing clear policies and guidelines, offering faculty development opportunities, and fielding student feedback. Having clear policies and guidelines in place provides an action framework and reference point for faculty. Policies and guidelines should emphasize the importance of accommodating DHH students and succinctly outline expectations of faculty concerning their responsibilities in the process. The development and implementation of inclusive policies at the institutional level can also ensure that accessibility for deaf students is prioritized and integrated across various areas, such as admissions, curriculum, campus facilities, and extracurricular activities.

It is also encouraging that faculty have expressed their willingness, or openness, to engage in professional development regarding the needs of DHH students. It is critical that institutions prioritize initiatives that focus on disability inclusion, accessibility, and communication. Institutions may also consider reallocating responsibility of faculty training to other departments that support faculty pedagogy and curriculum development or technology innovation. They might integrate training in those departments rather than leaving it solely up to accessibility offices. Institutions should encourage DHH students to provide feedback on their experiences in the classroom and their interactions with faculty. Their perspectives can inform faculty about specific challenges they face and

the effectiveness of accommodations. This feedback can motivate faculty to take action and make necessary adjustments, as well as paint a picture of the state of support provision at the institution overall. Ongoing evaluation and feedback procedures should be established to assess the effectiveness of support services and identify areas for improvement. These efforts can include regular surveys, focus groups, or individual feedback sessions to provide insight into the experiences of DHH students and prompt the necessary adjustments to be made. By fostering a campus-wide collaboration and commitment, institutions can create an inclusive environment that acknowledges the diverse needs of DHH students and provides the necessary support to help them thrive academically and socially.

### **Limitations**

The format of the study having been administered virtually due to onset of the COVID-19 pandemic is an inherent limitation. Responses might have been more detailed and probing questions permitted had it been delivered face-to-face, in person or via video conferencing, as a semi-structured interview. Though few, another limitation is that not every faculty member has had a DHH student; it was not a requirement for study participation. Collected data on experience with DHH students, as well as institutional rank, were not used as additional factors in analysis of participant responses. This omission limits any understanding of how these variables might have influenced participant responses; future studies should include an examination of these factors to inform targeted interventions and training for faculty. The generalizability of results in this study are limited: faculty self-selected, possibly overestimating willingness, and the small, private northeastern sample limits external validity. The instrument used in this study was another limitation. Fictionalized scenarios complicate the task of discerning respondents' genuine actions in a given situation, as their responses may be influenced by their perceptions of what they believe is expected of them, rather than reflecting their true behaviors or intentions (Sampson & Johannessen, 2020). It was intentional to encourage faculty to put their best foot forward in their responses, but the researchers recognize that in the real world their actions may not always be as positive. It is necessary to complement the current study with student experiences and additional evaluation of faculty performance in practice rather than in theory.

## Conclusion

Faculty play an instrumental role in the campus-wide responsibility of supporting the success of DHH college students by providing necessary accommodations and fostering a sense of community. However, the data presented here suggest faculty often feel unguided by their institutions, facing challenges such as heavy workloads, inadequate training, and unclear expectations. To bridge these gaps and enhance support for DHH students, it is essential to document and implement effective practices. Campuses can work towards creating an environment in which DHH students feel valued, supported, and included by prioritizing increased understanding, open communication, and inclusive practices.

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### About the Authors

Nicole Genser, Au.D., is a clinical audiologist at the Center for Hearing and Communication in New York, NY. She earned her doctorate in audiology from Montclair State University, NJ, and her bachelor’s degree in Communication Sciences and Disorders from Iona University, NY. Clinically, she provides services to pediatric and adult populations, with interests in aural (re)habilitation, diagnostics, and counseling. She also actively contributes to CHC outreach and community-education initiatives. Nicole was previously part of the Research and Data team at the National Deaf Center on Postsecondary Outcomes. She has published and presented in several forums on access and inclusion for DHH teens and young adults, as well as healthcare professionals, across postsecondary settings. She can be reached at [nsgenser@gmail.com](mailto:nsgenser@gmail.com).

Michelle Veyvoda, Ph.D., is a professor and department Chair in the Department of Communication Sciences and Disorders at Iona University. She earned her M.S. in Communication Sciences and Disorders from Gallaudet University and her Ph.D. in Deaf Education from Teachers College, Columbia University. Her scholarship and clinical expertise

focus on supporting deaf and hard of hearing children. She has published widely, including in the *Journal of Deaf Studies and Deaf Education* and *ASHA’s Perspectives* journal. Dr. Veyvoda currently co-directs the U.S. Department of Education grant-funded Interdisciplinary Advanced Certificate for Working with Deaf/HH Children and their Families, a certificate program that prepares graduate students to work with this population. She is committed to advancing inclusive practices and preparing future professionals in speech-language pathology and audiology. She can be reached by email at [mveyvoda@iona.edu](mailto:mveyvoda@iona.edu).

Jeffrey Levi Palmer, Ph.D., is a hearing Coda (Child of Deaf Adults) and Senior Research Associate at the National Deaf Center on Postsecondary Outcomes, a technical assistance and dissemination center that focuses on improving employment and education outcomes for deaf people. In addition, he teaches graduate-level courses in research methods at Gallaudet University. He can be reached by email at [jeffrey@nationaldeafcenter.org](mailto:jeffrey@nationaldeafcenter.org).

Carrie Lou Bloom, Ph.D., is an Assistant Professor of Practice in the Department of Educational Leadership and Policy at the University of Texas at Austin and co-directs the National Deaf Center on Postsecondary Outcomes. Her research focuses on the psychological factors involved with transition, and strategies for mitigating systemic disparities that affect deaf communities. Carrie Lou advocates for examining the deficits within systems, then changing the systems — not deaf people. She can be reached by email at [carrielou@nationaldeafcenter.org](mailto:carrielou@nationaldeafcenter.org).

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## Appendix

**Please read the scenario and record your response in the text box provided. You may choose to consider the three presented questions in your response.**

At the start of the semester, a student in your class, who is also your advisee, discloses to you that she has a hearing loss. After performing poorly on the first two quizzes, she comes to your office and tells you that she believes the root of her difficulty might be her hearing loss. She also reveals that she did not require many accommodations in high school and was able to keep up and do well despite her hearing loss, but believes she now needs more support than she did in the past. Finally, she reveals that she is experiencing some social isolation due to her difficulty accessing on-campus events and social opportunities.

1. What questions might you have for the student to develop a fuller picture of her needs?
2. What additional information would you want to know about hearing loss in general and its impact on academics? Where would you go to find that information?
3. Describe how you would proceed with the student to ensure that she has the necessary accommodation, support, and access to curricular, co-curricular and social opportunities at Iona College. (Include any collaborative partners that you think should be involved.)

# **Inclusive Disaster and Emergency Management: Collaboration Between Deaf and Hearing College Students**

**Hayley Stokar<sup>1</sup>  
Audrey C. Cooper<sup>1</sup>  
Kota Takayama<sup>1</sup>**

## **Abstract**

College students training to become service professionals need authentic and collaborative learning experiences regardless of hearing status. This case study examines a classroom experience created by educators in Emergency Management at the University of Central Missouri and Gallaudet University's Social Work and International Development programs. Deaf and hard of hearing (DHH) and hearing undergraduate students from different disciplinary fields collaborated remotely on a disability-inclusive emergency management project to assess a community hazard and propose risk reduction actions, all while navigating different communication preferences (e.g., written English and American Sign Language [ASL]). One major finding was that, while non-signing hearing participants gained cultural and communication competencies through working with DHH peers who were ASL users, DHH participants felt they did not benefit as much from the experience and were put in a position to teach about inclusivity, which was beyond their role as students. This study underscores the importance of pre-planning for cultural competency in university settings and illuminates pedagogical components necessary to deliver inclusive training that prepares professionals to lead and serve DHH populations.

*Keywords: emergency management, deaf people, college students, American sign language*

Over the past two decades, research on disability-inclusive disaster and emergency management has documented the barriers that deaf and hard of hearing (DHH) communities face with participation in emergency preparedness and management activities around the world, (Calgaro et al., 2021; Cooper et al., 2021; Craig et al., 2019; Engelman, 2012; Engelman et al., 2013; Takayama, 2021; Tannenbaum-Baruchi et al., 2014). In the same period, research on disability-inclusive disaster education (DiDE) for school-age children with disabilities has begun to affirm a cultural and linguistic view of DHH people (e.g., shared values and features of experience and shared signed languages), rather than a disability view (Nikolarazi et al., 2021; Ronoh et al., 2015; Stough et al., 2020).

However, there is almost no research on DiDE training in higher education settings with DHH students (Takayama et al., 2022) to inform best practices for classroom instructors and disability resource professionals, many of whom may have limited experiences with DHH populations. The call to center

DHH people's perspectives in training and programming that involves them has gained traction over the past two decades (Harris et al., 2009; Singleton et al., 2014). Whereas the broader disaster and emergency management literature includes work on higher education settings (Farris & McCreight, 2014; Know et al., 2019; Takayama et al., 2022; Thayaparan et al., 2015) and cross-institutional training partnerships (Knox & Harris, 2016), few publications address pedagogical approaches to emergency management training with DHH students or training that aims to bridge communication divides between DHH and non-deaf (i.e., "hearing") students in higher education. Note that this paper follows Ruiz-Williams et al. (2015) and Kusters & Friedner (2020) in using "deaf" as an inclusive term, as well as the inclusive abbreviated form "DHH"; this reflects a shift away from scholarly use of "d/Deaf," which distinguishes between individuals who do or do not identify with deaf culture and sign language, and toward recognizing all deaf persons regardless of their respective identities.

<sup>1</sup> Gallaudet University

DHH people represent a substantial segment of the U.S. population. According to the 2021 American Community Survey, an estimated “3.6% of the U.S. population, or about 11 million individuals, consider themselves deaf or have serious difficulty hearing” (U.S. Census Bureau, 2021). It should also be noted that, while many DHH individuals do not identify as having a disability (Lane, 2002; Skyer, 2021), their higher education accommodations fall under the purview of the Americans with Disabilities Act (1990) and classroom supports are typically coordinated through disability resource offices at universities.

In most public service fields for which university students train (e.g., emergency management, social work), communication dynamics between non-deaf and/or non-signing personnel and deaf individuals can present a unique challenge, often resulting in a significant communication gap. In the United States, emergency personnel are typically not trained in the use of a signed language (e.g., ASL, Black ASL) or in interacting with diverse DHH people and may lack awareness of deaf culture, sign language, or alternative strategies for establishing effective communication (Engelman et al., 2013). To reduce risk and advance DHH communities’ capabilities to prepare for and manage the consequences of disasters, formal education and training for hearing and DHH emergency management personnel are critical (Engelman, 2012; Engelman et al., 2013, Ivey et al., 2014). Equally important is the acquisition of disaster and emergency management skills by DHH social workers and direct service providers so that they can provide information to DHH communities, including resources related to emergency management, in their local languages.

In recent years, social work bachelors and master’s programs accredited by the Council on Social Work Education (CSWE; 2022) have begun to incorporate more initiatives related to environmental justice, as well as diversity, equity, and inclusion. Disaster and emergency management education has also begun to shift. Gallaudet University recently established a graduate certificate and undergraduate minor in Disability-Inclusive Disaster Risk Reduction & Emergency Planning. More broadly, universities are working to assure that students, staff, and faculty have more training and education about emergency preparedness as it relates to DHH populations and persons with disabilities (Plotner & Marshall, 2014; Scott & Aquino, 2024; Sprong et al., 2018; Takayama et al., 2022).

Toward these ends, a semester-long collaborative capstone project was completed during the Fall 2021 semester by undergraduate students in two courses:

Community Risk Reduction at the University of Central Missouri (UCM) and Social Welfare Policy at Gallaudet University (GU). The present case study was designed to examine the project within the “bounded system” of the classroom (Creswell, 1998) using multiple sources of information. Evaluations of the students’ experiences aimed to provide insight and inform future training in higher education settings, with the goal of strengthening Deaf and disability-led classroom pedagogy and informing best practice for higher education professionals supporting both DHH and hearing college students.

This case study presents a qualitative evaluation of a university-level project aimed to exchange specialized knowledge and grow experience working on diverse teams, building capacity around emergency management for DHH people in the US via higher education experiences. It also examines the differences in perspective and experience between college students who are DHH and those who are hearing. Both of these study objectives inform the larger goal of developing and fortifying college-level curricula and informing best practice for educators and disability service providers who help both hearing and DHH graduates serve communities in an emergency management capacity after graduation.

## Materials and Methods

The current case study involved two U.S. universities with different geographic locations, student compositions, and academic programming. Gallaudet University’s Social Work program wished to enhance curricular elements surrounding emergency management and disaster risk reduction, as it relates to environmental justice. Likewise, the University of Central Missouri’s Crisis and Disaster Management program’s curriculum aimed to incorporate additional competencies for working with diverse and low-incidence populations. Both institutions hoped to gain insights that could be shared with relevant stakeholders internally and in the community.

## Study Objectives

1. To evaluate the effectiveness of inter-university, interdisciplinary collaboration in the undergraduate classroom setting.
2. To increase available information for hearing students and educators on the needs of Deaf persons and persons with disabilities during times of crisis and disaster.
3. To add to the extent literature and resources in service fields, emergency management,

and higher education, from which students, instructors, and university disability resource officers may benefit.

4. To provide a baseline for further advocacy-oriented instruction in both Disaster and Emergency Management and Deaf Community Services.

### **Research Design**

To align with the stated study objectives, researchers used an instrumental case study approach (Stake, 1995; Yin, 1984) to explore interdisciplinary classroom collaboration and its broader implications. This approach was chosen on account of its suitability for multiple academic disciplines and integration of multiple sources of information (Creswell, 1998) and combination of participant feedback with researcher observations and assertions (Creswell, 1995).

The class project was conducted from September 2021 through December 2021. At the start of the semester, students were divided into six groups with even numbers of UCM and GU students, and each group was assigned a hypothetical hazard scenario. Scenarios included both urban and rural settings in the continental United States and related to both natural disasters and man-made emergencies (see Table 1). Of the six scenarios, dam failure, building collapse, and power grid failure are considered man-made emergencies, while coastal flooding, heat wave, and wildland-urban interface fire are considered natural disasters.

All meetings and other communications were conducted remotely throughout the semester, and students exchanged knowledge from their respective disciplines toward the completion of a semester-long project deliverable: a slide-based presentation on disaster risk assessment considerations for DHH persons and persons with disabilities that can serve as a community resource.

In ideal circumstances, certified American Sign Language (ASL) interpreters coordinated by GU Interpreting Services would have been available to students to bridge the communication gap between DHH and hearing team members. However, due to a notable, nationwide shortage of ASL interpreting services relating to COVID-19 impacts on the profession (McKibbin, 2021; Mozdzer, 2022) much of the interdisciplinary communication took place over technology platforms for written English (e.g., email, text, chat, and captioned video conferencing).

Throughout the semester, the instructors communicated with each other about the progress of the collaboration as well as challenges faced by students. Faculty responded to student-initiated questions or concerns by email, Zoom, and occasionally by phone

when students struggled with different interpretations of the assignment. The instructors also communicated with each other on a weekly basis as participant observers about reported concerns and worked together to adopt solutions that were responsive and clear.

Approximately one month before the sharing of presentations, drafts of the slide presentations were sent to graduate students in GU's International Development Master of Arts program who evaluated the slides and offered feedback based on disability inclusive accessibility features and on content clarity. In a culminating synchronous event, presentations were held over Zoom in December 2021, facilitated by ASL interpreters. Students, instructors, university administrators and co-investigators were present for these presentations. These presentations were graded with a rubric that evaluated organization and clarity, assessment content, application to DHH populations, and proposed strategies.

### **Data Collection**

Assessment of this interdisciplinary collaboration involved two components: formal observation by course instructors and a brief qualitative survey at the end of the semester administered through Qualtrics. The survey instrument consisted of 11 open-ended questions related to the students' experiences as participants, and 5 demographic questions related to race, gender, hearing status, age, and university (see Appendix A). The survey addressed three general dimensions of the project: (a) student experience of collaboration, (b) most salient lessons learned, and (c) strengths and weaknesses of the project design itself. Evaluation also included instructor participant observation and reflection on both process and outcomes, collected through meeting notes, emails, and summative written reflection.

It was expected that all students complete the feedback survey evaluation as part of their coursework. However, they had the option to decide whether they wanted their anonymous responses to be included in the dataset for the current study. Out of 27 respondents, 3 opted out, and the rest (24) were included in this study. No compensation was given to participants, as the evaluation form was designed to be utilized as part of an in-class assignment and did not require any action by students other than what they would normally perform for class.

### **Participants**

All students who responded to the survey portion of this study ( $N=24$ ) were enrolled at UCM ( $n=12$ ) or GU ( $n=12$ ). Demographic data collected from survey participants include gender, age, hearing status,

**Table 1***Assigned Hazard Scenarios*

Hazard	Geographic Location	Gallaudet University	University of Central Missouri
		<i>n</i>	<i>n</i>
Dam Failure	Truman Dam, Warsaw, MO	3	3
Coastal Flooding	New Hanover County, NC	3	3
Heat Wave	Portland, OR	4	3
Wildland-Urban Interface Fire	Sevier County, TN	3	3
Building Collapse	Gettysburg, PA	3	3
Power Grid Failure	Washington, DC	3	3

**Table 2***Demographic Information (N = 24)*

Demographic	Total (N = 24)		Gallaudet University (n = 12)		University of Central Missouri (n = 12)	
	<i>n</i>	%	<i>N</i>	%	<i>N</i>	%
Gender						
Female	13	54.2	7	58.3	6	50
Male	8	33.3	2	16.7	6	50
Undisclosed	3	12.5	3	25.0	0	0
Race/Ethnicity						
White/Caucasian	18	75	10	83.3	8	66.7
Latino/Hispanic	1	4.2	1	0	2	16.7
African American/Black	2	8.3	0	0	1	8.3
Asian	0	0	0	0	0	0
Multiracial	1	4.2	1	8.3	0	0
Native American	1	4.2	0	0	1	8.3
Other	1	4.3	0	8.3	0	0
Hearing Status						
Deaf	9	37.5	9	75	0	0
Hearing	10	41.7	0	0	10	83.3
Hard of Hearing	4	16.7	3	25	1	8.3
Other	1	4.2	0	0	1	8.3
Age	<i>M</i> = 27.7 <i>SD</i> = 11.5 Range = 18-62		<i>M</i> = 28.4 <i>SD</i> = 9.5 Range = 20-47		<i>M</i> = 27.2 <i>SD</i> = 12.4 Range = 18-62	

race, and university attended (see Table 2). Gender identification in the sample included 54.2% cisgender women ( $n=13$ ), 33.3% cisgender men ( $n=8$ ), and 12.5% ( $n=3$ ) who preferred not to disclose gender information. Regarding hearing status, 41.7% ( $n=10$ ) identified as hearing, 37.5% ( $n=9$ ) identified as Deaf, 16.7% ( $n=4$ ) identified as hard of hearing, and 4.2% ( $n=1$ ) identified as having another hearing status. Participant ages ranged from 18-62, with a median age of 22. The sample's racial/ethnic composition was 75% ( $n=18$ ) White/Caucasian, 8.3% Black/African American ( $n=2$ ), 4.2% ( $n=1$ ) Latinx/Hispanic, 4.2% ( $n=1$ ) Native American/Alaska Native, 4.2% ( $n=1$ ) Multiracial, 4.2% ( $n=1$ ) Other, and 0% Asian/Pacific Islander.

### Data Analysis

Data analysis involved open and axial coding using MaxQDA 2022 software (Woolf & Silver, 2017) that occurred after all of the survey responses were received. First, the primary investigator read through responses to survey questions and established 11 original parent codes and 4 child codes (sub-categories). Then, through an initial round of open coding, three more parent codes and three more child codes were established. A second cycle of axial coding (Corbin & Strauss, 2008) was also performed to connect themes that arose with the students' university and hearing statuses.

The roles of the primary investigators were carefully considered with respect to authority, representation, and positionality. Positionality has been shown to be significant for research processes, outcomes, and analysis in general (Muhammad et al., 2014), as well as for research with DHH communities specifically (Graham & Horejes, 2017). For instrumental case studies in which the researchers are in multiple social and geographical contexts, self-reflexivity and positionality are also key (Leopold, 2011). Primary data were collected by the two course instructors. Their positionalities as non-deaf ("hearing") university faculty members—one of whom uses ASL as the language of instruction (Stokar), and one who uses English as the language of instruction—are relevant to the present research, as are their backgrounds as White women. The other two researchers were not engaged in course-related activities. In terms of their positionalities, both use ASL for research and teaching purposes (in addition to other languages), with the third author (Takayama) representing a deaf and Japanese background and the second author (Cooper) a late hard-of-hearing White Euro-American background. Because hearing status and other intersectional identities may influence investigator interpretation of the data, the deaf co-investigator also

audited the findings by recoding 3 of the 12 survey question responses.

## Results

Findings for this case study are organized into two parts: qualitative survey results and instructor observations. Both relate to the student experience of collaboration, the design of the project, and key lessons learned.

### Part 1: Qualitative Survey Results

The survey results included three main topic areas: (a) Experience of collaboration (with team members of different hearing statuses, communication modalities, and academic disciplines), (b) most salient lessons learned (relevant to marginalized community members and most likely to be used in the field), and (c) strengths and weaknesses of project design (assignment structure, workload balance, and logistics and schedules). The following section shares common themes that emerged in each category, along with specific quotes from student participants that highlight these themes.

#### *Experience of Collaboration*

##### **Team Members with Different Hearing Statuses.**

A prominent theme that emerged with UCM students was appreciation of the opportunity to work with and learn about their DHH peers. Several students stated that working across languages and communication modalities helped them see things from a different perspective, with one participant describing it as "causing us to think outside the box." No hearing participant mentioned ever having worked with DHH collaborators before, and several stated overtly that this was their first experience collaborating with DHH individuals. The majority of UCM students described this collaboration as a positive experience. For example, one UCM student noted that working with DHH students "forces you to step out of your comfort zone and find new ways to communicate! It was a small challenge, but I think we nailed it!" Another UCM student explained,

I had such a great time and learned so much. It was certainly a new experience for me seeing interpreters sign what I was saying as well as hearing them interpret what was being signed. I thought it was such a cool experience and I would really like to continue work like that in the future as well as take up some study of ASL.

Positivity about the collaboration was not felt uniformly, however. While two GU participants reported enjoying the challenge, others noted that the burden of communication challenges fell unevenly on the DHH students. Deaf individuals often encounter recurrent misunderstandings and experiences of re-traumatization throughout their lives, which can contribute to a sense of hopelessness (Anderson et al., 2017; Takayama, 2017). One GU student explained that they “learn to not rely on people to provide the communication for us because they will not bother to try to accommodate to us as Deaf people. Hearing people do not realize how ignorant they have been throughout the semester.” Another GU student explained the following:

Communication was difficult; during Zoom meetings hearing members sometimes used their voices instead of typing things into the chat, despite us telling them that we could best access the meeting through written English. It also extinguished the opportunity to use ASL when we were not provided interpreters. On top of trying to complete the project, we didn’t have time to also teach the other students about Deaf culture. While educating others about Deaf culture is wonderful, it requires intention and creates an added burden on us to be expected to teach the other students.

Accessibility related to hearing was not the only dimension of equity involved in the project. One team experienced a challenge with making their slides accessible to individuals with low vision. As GU has many students who require visual accommodations, best practice for slide presentations involves using white or yellow font on a dark background (e.g., black or dark blue). When GU students shared a few slides with their UCM colleagues using these color preferences, a UCM student “fixed” the slides by converting them to a design template deemed sleeker and more aesthetically pleasing. UCM students mistakenly thought their GU colleagues were apathetic toward design, while the GU students did not realize that their teammates were not trained in meeting low-vision accommodation needs.

**Communication Among Team Members.** Because spoken English was not an effective communication modality for the DHH participants in this study, teams needed to utilize other modes of communication. Due to a notable nationwide shortage of available ASL-English interpreters, communication between teammates was conducted primarily through written means (e.g., email, text, Google chat, and Zoom chat). While the majority of participants from both universities described these modalities as

effective insofar as they were able to understand each other and complete the project, students from both universities expressed a desire for synchronous meetings using an interpreter. One UCM student noted, “The ability to meet via video conference in real time is something I wish our group would have done in lieu of communication solely through Google chat.” Another UCM student explained, “When we needed to have really detailed conversations it was hard to do over text chat and it is something I usually would have preferred to have a phone call or video chat about.”

While three GU participants stated that typed communication worked fine, others felt live meetings with interpreters would have improved the collaboration experience. For example, one GU student suggested the following: “Provide or have better ways to have interpreters for small groups instead of us trying to figure out how we can communicate with each other.” A second GU student explained,

I would provide interpreters...it was both ironic and degrading to be presenting about the necessity of providing language access such as ASL interpretation and captions on all emergency communication when we were not even provided these things in our required academic meetings at a school for the deaf.

**Team Members from Different Academic Disciplines.** Despite being asked directly about what each set of students (i.e., social work and emergency management) learned from the other, few cited the area of study as a factor that added to or diminished the group experience. GU students in particular had little to say about emergency management itself. UCM students valued interacting with DHH students but not necessarily learning about social services for DHH communities (or individuals with disabilities, a population about which GU students receive some education and training). One UCM student did comment on the cross-disciplinary approach:

I loved getting information from my group mates from Gallaudet! Their ideas or ways of thinking were so different from how I am hardwired to think for emergency management! It really opened my eyes to more viewpoints and bettered my communication skills.

### ***Most Salient Lessons Learned***

**Emergency Management Supporting Marginalized Community Members.** Regarding lessons learned about disaster risk reduction and emergency management, most students shared key takeaways

involving considerations for DHH populations and disability populations. Only one response from either university group related to general emergency management; a GU student simply remarked that it was “nice to learn [UCM’s] knowledge about emergency management.” UCM students reported they did not realize how much information their field is missing about the needs of DHH community members and persons with disabilities. Likewise, GU students expressed surprise and dissatisfaction about this very issue. One explained, “I learned the deaf feel left out of the process and underserved by first responders [and to] make inclusion of all aspects of the community a priority when conducting disaster risk mitigation and preparedness.” Another GU student noted the following:

In a perfect world, disability access in a disaster is tough to come by. It’s the LAST thing known to man for firefighters and EMS. They may be aware of us, but they don’t think of us among their priority when dealing with serious situations.

Rather than highlighting the need for specialized skills, an emphasis was placed on simple awareness of lower-incidence populations like DHH residents and those with disabilities during disasters and emergencies. One GU student noted the need to “think of others with disabilities; remember we exist too.” For a UCM student,

The majority of the public take seemingly simple things for granted when it comes to aid or information. There are a lot of people in every community that have disabilities that are often overlooked and it’s not quite as simple as putting out any one type of information out for the public. Considerations must be made to make sure everyone is in the loop for their safety.

Students were asked directly about what lessons from this project they would carry forward into their next interdisciplinary group experience. Several UCM students (n=6) mentioned using things they learned this semester in their real-life professional settings, while no GU students made any mention of employing emergency management knowledge in their future work. Students from both universities did, however, provide feedback on how the classroom collaboration can be improved in future iterations.

### **Strengths and Weaknesses of Project Design**

**Assignment Structure.** When asked about the strengths and limitations of the project structure, several students from both universities liked that they were given a full semester for the collaboration. Only one student (UCM) commented on the use of segmented deadlines and stages—particularly the rough draft submissions which were reviewed by GU graduate students:

I liked the overall timeline of the project; it gave plenty of time as well as benchmark tasks to reach to get everyone on the same page at certain intervals. I think that really helped things come together in the end.

Two notable limitations in the assignment structure were identified. First, the grading rubric (see Appendix B) used by GU (both the social welfare policy class and the graduate students reviewing the draft) was not included with the syllabus and course materials for UCM students, causing some confusion and frustration while assembling the final presentation. Second, the project was designed in a way that allowed students to, if desired, construct different sections completely independently of each other and simply combine the slides at the end for the final presentation. Because there were few opportunities to meet synchronously, many groups simply split up the tasks. As noted by one GU student, “it is hard to get all together. Most of time, our Deaf group do[es] work on [our] part then send[s] to hearing group for [their] part.”

**Workload Balance.** An imbalance of responsibility among group members was cited by five out of six groups. This is an imbalance commonly seen in education settings, and there was no indication that uneven effort put forth by certain group members related to hearing status or university. For example, one GU student explained, “We did have one member who was in the group text but never did the work or did anything which is unfair because most of us put effort into this project.” A UCM student indicated the following:

I personally do not believe that the challenges we faced can be attributed to differing communication modalities. The challenges we faced were similar to those you would expect to face on any group project: differing opinions, organization and dissemination of workloads.

**Logistics and Schedules.** When asked about the challenges of working on a team with members from different universities/geographic areas, nearly half of the participants cited different time zones as an inconvenience for group work. Because UCM’s program is

entirely online, this collaboration included students from all United States time zones. One UCM student thought the geographic diversity enhanced the project as an opportunity to learn about different regions.

Beyond geographic challenges, as many students at both institutions held jobs in addition to their studies, so scheduling was reportedly a challenge. For instance, for one UCM student, “It was just tough to find a common time to work together and to get things moving on a somewhat common timeline.” A student from GU explained that “the challenge was finding the time to meet to get together...sometimes we were not on the same page, sometimes we were. [It] really depend[ed] on the time of the day and where we are at.”

## **Part II: Instructor Observations**

The second method of evaluation for this study was instructor observation, which entailed regular email correspondence, Zoom calls, and field notes reflecting on the experience. The following section describes this process in context and highlights major themes that emerged.

It is important to note that both instructors are hearing individuals—one specializing in social services for DHH populations and the other specializing in emergency services for rural communities. In the planning stages for this project, the instructors got a preview of the collaboration experience across different time zones and disciplines. There were two major differences, however, that distinguished their experience from that of their students. First, both had past professional experience working on interdisciplinary teams, and were accustomed to conducting business via email and text with those in other fields and geographic locations. Second, because they were both hearing, they were able to make use of real-time video calls through Zoom without the use of captioning or an interpreter. These factors, particularly the latter, may have led them to underestimate challenges the students would have while collaborating.

The instructors checked in weekly with their students to answer questions and address concerns. The vast majority of concerns and complaints centered on (a) the equitable distribution of work, and (b) the timeliness of group member responses to emails and sharing of drafts. These two problems are endemic to academic group work on any level. The added complication, in this case, was communication modality challenges. As mentioned previously, ASL interpreters were provided by Gallaudet only for one introductory workshop with all participants and two presentations sessions at the end of the semester. Between those meetings, students were asked to collaborate using telecommunication technology such as email, text,

chat, captioned video conferencing, or video relay service (VRS) calls, which triangulate conversations between a deaf individual and a hearing individual through an ASL interpreter at a remote location.

Even with the option for interpreted real-time calls (which can, in some instances, be integrated into video conferences), all groups reported communicating almost exclusively through written English, a language shared by (but not native to) all participants. As expected, the DHH students who preferred communicating in ASL expressed frustration with having to rely solely on written English, while hearing students, who were all native users of English, never complained about this communication modality. Interestingly, both hearing and DHH students expressed a desire for more real-time communication, with an ASL interpreter. It is unclear to the instructors whether this request relates more to the efficiency of real-time communication or to the benefits of allowing each group to use the language that is most natural/comfortable for them.

The asynchronous nature of the exchange of written communication did not result in the dialogue that students may have been desiring. The timing of the sharing of this written content between group members also left some members out, especially those who waited until just before the deadline to contribute to the group effort.

Due to constraints imposed by a shortage of available interpreters and the general structure of the project, there was little the instructors could do directly to bridge this gap. They encouraged the students to utilize technology and think of creative ways to connect, but these workarounds may have been negatively impacted by differences in schedules, which was the second major complaint from students. GU students, whose work and study schedules were more traditional, expressed desires to connect with UCM students during the day or early in the evening. Because the majority of UCM students in the class worked full-time, some in first responder jobs involving evening and overnight shifts, they expressed that it was difficult to respond to GU students at traditional hours and timelines.

The instructors, at times, wondered if more structure and more formal explanation of telecommunication technology would have helped students. Since virtual meetings of the groups did not include instructors, each instructor interacted almost exclusively with the portion of the group consisting of students from their own respective universities. Each of them communicated with students in their own course and any advice on the project, topic, methodology, or cooperation was relayed from student to student. It is likely that some miscommunication resulted.

With a better understanding of the complex issues students were confronting, instructors could have prepared videos with captioning to reiterate instructions or respond to questions. Providing answers and additional information in a format that could be accessed by all members of the group, and particularly those that were not available at the time of the meeting, would have encouraged participation from other group members that felt left out.

### **Discussion**

With the goals of strengthening both college-level pedagogy on disaster and emergency management and general best practice for DHH-hearing collaboration in a college context, the findings of this study produced notable insights about interdisciplinary, intercultural, and interlinguistic work. While the focus was on classroom collaboration, many of the themes are widely applicable to collaboration in university and community contexts. With respect to logistics planning and outcomes, participants encountered challenges related to remote work across several U.S. time zones, with group members managing very different work and school schedules. They also expressed a concern common to most group projects in educational settings regardless of time and location challenges, namely, the unequal participation of group members in creating the final deliverable. While this dimension of the findings is not uniquely pertinent to DHH or disability populations, it is important for all university instructors, service providers, and students to keep in mind.

The most valuable insights, however, center around the cultural and linguistic challenges innate to this particular project: Collaboration between DHH and hearing, non-signing individuals. Group projects are always challenging, even when students can meet in person and communicate verbally in the same language. This project presented students with unusual challenges due to the language barrier. While this dimension was anticipated by the instructors during the planning process, they did not know the degree to which communication would impact content and success of the learning experience overall.

The fact that both instructors identified as hearing may be relevant to this underestimation. While one instructor did possess high familiarity with services for DHH populations within and outside of college settings, it is worth acknowledging that her positionality may have impacted her perceptions. This acknowledgment is important for non-instructor university professionals such as disability resource officers as well—while many have extensive experience

with providing services and accommodations for DHH students in their college classrooms, very few of these professionals actually identify as DHH (Burke 2020; Scott & Marchetti, 2021)

The Americans with Disabilities Act (1990/2008) sets the standard for language and disability accommodations at whatever is deemed “effective.” In this case, written English communication was “effective” on a basic level, but participants felt that it fell short of being meaningful and easy to employ. This is a key finding for anyone in higher education using the ADA as a framework for classroom accommodation—the difference between effective and meaningful/manageable may be vast. The burden of educating hearing participants, in addition to the strain of using a language that is not their native languages, impacted the morale of some DHH participants. Hearing participants concurred that work would have run more smoothly had a tool like real-time ASL-English interpretation been available throughout the course of the project.

It is reasonable to say that students’ diminished motivation and satisfaction with the collaboration process and diminished motivation to employ writing as a central communication modality had a negative impact on the work they were doing. This demoralization could impact the success of real outcomes if used in a real-world emergency management context, and also has implications for DHH hearing collaboration across higher education, both within and outside of the classroom. Thus, it is critical to consider the difference between “effective” and “preferred” when designing future collaborative classroom projects—and even when providing classroom accommodations in general.

From a deaf cultural perspective, the integration of cultural awareness and responsiveness in the education of emergency management students is not just an enhancement but a critical necessity. For DHH individuals, communication is not merely about the exchange of information but is deeply embedded in cultural practices and values. It is unreasonable to expect all non-signing hearing faculty and students to work toward and achieve ASL fluency in a one semester course, given the time and exposure constraints necessary for actual language acquisition without supports such as guidance from a deaf culture mentor. Cultural awareness and responsiveness, however, are knowledge sets that all hearing/non-signing emergency management students and professionals can and should be able to acquire (Cripps et al., 2016).

A few examples of these knowledge sets that hearing students, instructors, and university resource professionals can acquire are understanding the importance of facial visibility, eye contact, com-

munication in settings with reduced ambient noise, recognition that many DHH people do not “read lips” and other key cultural practices (e.g., culturally appropriate attention-getting techniques, use of pointing). This collaboration and the mixing of students with diverse cultural and language backgrounds provided a limited yet impactful immersion experience for an online class. Guest speakers or a one-time interaction with people of different hearing statuses is not as impactful as a joint project involving critical thinking and problem solving.

Germane to this notion is the idea that instructors and disability resource professionals should be continuously involved, assessing and improving based on student feedback and needs, rather than simply establishing a plan at the start of a semester and seeing how it turns out. As with other findings from the study, this notion is not specific to emergency management or social work; rather, it should be considered in all higher education and professional contexts where DHH persons or persons with other distinct communication needs are involved.

Despite noted challenges, the classroom collaboration brought modest value to DHH students regarding emergency management knowledge, and significant value to hearing students regarding their meaningful exposure to DHH peers. There is ample literature to suggest that with low-incidence populations such as DHH individuals, past or current exposure alone can improve interactions and other tangible social outcomes (Engelman et al., 2013; Friedman, 2017; Gonsalkorale et al., 2010). For this reason, collaborations with DHH and hearing individuals in college classroom contexts can make a positive difference and should be endeavored, with special attention paid to supporting the linguistic and cultural needs of DHH participants to avoid social burden.

### Limitations

The limitations of this case study are its sample size and relative specificity. It is difficult to generalize the experiences of 24 undergraduate students to the general population of students in higher education. The instructors, too, had specialized knowledge and an interest in collaboration; however, it is unclear how effective this learning experience would be if implemented by general faculty members in social work or emergency management programs. Additionally, disability resource officers and outside experts and consultants from the DHH community were not actively involved throughout the semester—it is possible that the experience would have had greater socialization and learning benefits had more outside providers contributed to its design and execution.

Furthermore, the actual content of the project was narrow and included specific disaster scenarios that were highly circumscribed. Not all aspects of the planned responses could be generalized to other emergency management situations, and the experience of collaboration may have diminished relevance for class subjects not related to disaster and emergency management (Singleton et al., 2014). While student experiences did, indeed, inform best practice for DHH-hearing classroom collaborations generally, the content and design for this project were very specific, and it is unclear whether the structure of the assignment would work effectively for all college disciplines.

### Recommendations

The insights drawn from this classroom-based case study provide a strong foundation for future university training experiences promoting collaboration between DHH and hearing students, in emergency management, social services, and beyond. The researchers offer five general recommendations drawn from participant feedback and researcher reflection.

First, formal training should be provided for hearing emergency management students *before* they actively work with DHH populations in classroom collaborations. General information about best communication practices, deaf culture, and even basic ASL is essential for successful DHH-hearing working partnerships. Videos with ASL, spoken English, and captioning can be created and shared in situations where live and direct training are infeasible. Prior knowledge among hearing students may reduce the burden of educating hearing/non-signing students for the DHH student/partners.

Second, while communicating in written English can be effective for some DHH students, it is not ideal pedagogically to assure a positive and impactful learning experience. As such, all collaboration efforts in the classroom or the field should make use of American Sign Language (ASL) whenever possible, preferably via instructors who are proficient in ASL (either DHH instructors or hearing/signing instructors). ASL-English interpreters can be utilized; however, if the interpreters have not been trained in emergency management concepts, then they will be “learning on the job” and not necessarily a medium of accessibility (see De Meurlder & Hauland 2019 for discussion of evidence-based recommendations for language concordant services, not sign language interpreters). It is advisable to develop a cadre of dedicated interpreters to work with, and to build in extra time (two weeks to one month) whenever arranging for outside interpreters.

Third, guidelines for classroom-based projects and field collaborations should be clearly defined, detailed and clear, identifying specific roles, tasks, and outcomes. While self-directed activities and open-endedness can be useful in some contexts, students who do not share the same language backgrounds cannot be expected to engage in collaborative tasks without well-structured activities and strong facilitation from the instructor(s).

Fourth, instructors should consider involving consultation by or active involvement of DHH specialists and experts, as well as university disability resource providers and even deaf leaders in emergency management. These additional professionals can simultaneously inform project design to make it more equitable and effective while learning from the successes and failures of classroom collaborations to strengthen best practice overall.

Finally, correspondent to the suggestion above, informal and formal assessments of classroom collaboration projects should be shared with disability service and resource personnel and with university faculty in general, regardless of whether they were directly involved with the project. The insights gained from these collaborations is not bound to the specific course subject matter; rather, they are applicable wherever DHH and hearing people need effective communication with each other.

### Conclusion

Universities begun to pay increased attention to the experiences, needs, and contributions of DHH community members in disaster and emergency management training, but still have a long way to go to improve equity and efficacy. Central to these efforts is the need to prioritize inclusion of DHH people's participation in college-level training and general curriculum and pedagogical development. The current case study demonstrated how training and collaboration can be implemented in educational settings to prepare future professionals before they enter the field. More evaluative research, training, and engagement with prospective DHH professionals is needed; while these endeavors may take many forms, a commitment to partnerships across academic disciplines that center diverse DHH languages and cultures in emergency management training are paramount in creating education that fosters success.

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- clusive DRR & Emergency Planning graduate certificate programs. She can be reached by email at [audrey.cooper@gallaudet.edu](mailto:audrey.cooper@gallaudet.edu).

Kota Takayama received his Ph.D. from Japan College of Social Work and MPH from Boston University. His experience includes working as a clinical psychologist and clinical social worker for deaf and hard of hearing. He is currently a professor in the Department of Social Work at Gallaudet University. His research interests include trauma intervention, deaf studies/disability studies, and public health in deaf communities. He can be reached by email at: [kota.takayama@gallaudet.edu](mailto:kota.takayama@gallaudet.edu).

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### About the Authors

Hayley Stokar holds a Ph.D. in Social Work from Loyola University Chicago, an M.S.W. with a concentration in services for Deaf and Hard of Hearing populations from Gallaudet University, and a B.A. from Wesleyan University. Her experience includes domestic violence advocacy, school social work, and vocational rehabilitation for members of the Deaf and disability communities, and her research focuses primarily on employment justice and workplace communication. Stokar currently serves as the Program Director for Undergraduate Social Work at Gallaudet University. She can be reached by email at [hayley.stokar@gallaudet.edu](mailto:hayley.stokar@gallaudet.edu).

Audrey C. Cooper earned her Ph.D. in Anthropology with a concentration in Race, Gender, and Social Justice from American University. She also holds an M.S. in Dance/Movement Therapy and an M.S.W. in Social Work from CUNY-Hunter College. Cooper is a Professor in the International Development MA Program (IDMA) at Gallaudet University and is the Program Director for the IDMA and the Disability-in-

## Appendix A

### Survey Instrument

#### FEEDBACK ON TEAM DYNAMICS

1. Describe the positive elements of working on a team with members from two different disciplines (majors).
2. Describe the challenges of working on a team with members from two different disciplines (majors).
3. Describe the positive elements of working on a team with members with different hearing statuses/communication modalities.
4. Describe the challenges of working on a team with members with different hearing statuses/communication modalities.
5. Describe the positive elements of working on a team with members from different universities/geographic areas.
6. Describe the challenges of working on a team with members from different universities/geographic areas.
7. What did you learn from this group project that you will carry forward into your next interdisciplinary group experience?

#### PROJECT CONTENT & DESIGN

1. What were the 3 most impactful things you learned about disaster risk assessment for individuals who are deaf or have disabilities?
2. Which parts of the project design (e.g. timeline, tasks, goals, logistics) worked well?
3. Which parts of project design would you change for next year?
4. What, if any, benefits might your project content have for the wider community outside the university?

#### DEMOGRAPHICS

1. University:  Gallaudet  UCM
2. Gender:  Male  Female  Other
3. Age: \_\_\_\_\_
4. Hearing Status:  Deaf  Hearing  Hard of Hearing  DeafBlind  Other
5. Which of this best describes you:  Asian/Pacific Islander  Black/African American  
 Hispanic/Latinx  Native American/Alaska Native  White/Caucasian  
 Multiracial/Biracial  Other

**Appendix B**

**Project Evaluation Rubric**

<b>RUBRIC: Interdisciplinary Presentation</b>					
	None (0)	Does Not Meet Expectations (1)	Approaches Expectations (2)	Meets/Exceeds Expectations (2)	Points
Organization of Signed/Spoken Presentation					
Organization and length of written paper/slides					
Use of at least 6 academic or professional references					
Equitable work balance among team members					
	None (0)	Does Not Meet Expectations (2)	Approaches Expectations (4)	Meets/Exceeds Expectations (6)	Points
Application of Theories/ Frameworks (1+ Emerg Mgmt, 1+ Social Work)					
General Risk Assessment					
Risk Assessment for Deaf/ Disability Community Members					
General Communication Priorities					
Communication Considerations for Deaf/Disability Community Members					
	None (0)	Does Not Meet Expectations (2)	Approaches Expectations (4)	Meets/Exceeds Expectations (6)	Points
General Actionable Prevention Strategies					
Actionable Prevention Strategies related to Deaf/Disability Community Members					
Discussion of Applicable Local, State, and Federal Resources, Laws, Policies (1+ at each level)					
Comments:	Total:				



# “Really Fucked Up:” The Debilitation of the Accommodation Redemption Process

Griffin Leistinger<sup>1</sup>  
Bridgette Davis<sup>1</sup>

## Abstract

The aim of this study was to better understand the administrative burdens that postsecondary education students face when attempting to receive accommodations. To do so, we gathered student narratives via 13 interviews at a large public research university in New England. Rather than uncovering administrative burdens during a formal accommodation request, we found that students face a relationally demanding process when working with faculty to implement their accommodations throughout the semester. We name this the *accommodation redemption process*. Faculty seemingly use this informal process as a way to leverage a student's capacity to redeem their accommodations. We find that students will respond to these relational demands by developing what we call *relational strategies* in attempts to ease accommodation redemption. Students interviewed showed varying capacities in developing relational strategies, leading to disparate outcomes for students and altering their development. We fold in critical disability studies frameworks of ‘debility’ and ‘crip spacetime’ to name the material realities of this process and point explicitly to the particular harm it causes. We conclude with a critique of self-advocacy in light of this examination. By bringing together research and theory from higher education, public policy, and critical disability studies, we create an analytic for mapping these less examined relational redemptive processes for future research and making institutional change. Recommendations are given for higher education institutions, practitioners, and researchers.

*Keywords: accommodations, barriers, debility, relational strategies, critical disability studies*

The aim of this study was to better understand the administrative burdens that postsecondary education students face when attempting to receive accommodations. While administrative burdens did surface, these burdens did not sufficiently describe a more nuanced, endemic, and yet unnamed process that participants narrated. To adequately analyze this process, we pull from three fields: higher education, public policy, and critical disability studies. We review how we are using these fields below to create an overall analytic that both materially describes this process and how students experience it.

### Disability in Higher Education Research

Higher education scholarship has outlined many of the barriers students face when attempting to receive accommodations (e.g., Cai & Richdale, 2016; Francis et al. 2019; Lyman et al. 2016; Mamboleo et al., 2020; Marshak et al., 2010; Skinner, 2004; Toutain, 2019; Yeager et al. 2022). Among these include long understood barriers like a lack of knowledge about

how to navigate accommodations processes and lack of documentation (Cawthorne & Cole, 2010; Hong, 2015; Skeens, 2020), and institutional inefficiencies, such as inadequate staffing in accommodation offices, which have been found to be a barrier for students (Dowrick, 2005). Research has also described the role of internalized stigma and other attitudinal barriers among students, such as a desire for self-sufficiency and not wanting to be seen as different, that can lead to challenges towards receiving accommodations. (Erten, 2011; Francis et al. 2019; Hong, 2015; Lightner et al., 2012; Lyman et al. 2016; Marshak et al., 2010; Toutain, 2019). In addition, the field has discussed discrimination that students face as they navigate accommodations and how these experiences shape their capacities to engage successfully at college (Francis et al. 2019; Hawk et al., 2022; Hong, 2015; Kurth & Mellard, 2006; Marshak et al., 2010).

On the other end, accommodation literature has also focused on faculty perceptions. This specific area of research has cast light on the challenges fac-

<sup>1</sup> University of Massachusetts Amherst

ulty face when implementing accommodations in the classroom (Lombardi et al. 2011; 2013; Sniatecki et al., 2015). While some research has shown a hypothetical willingness from faculty to provide accommodations (Baker et al., 2012; McCarron, 2020), research and advocacy has also illuminated a hostility from professors around having disabled students in their classrooms (Cantu & Heumann, 2020; Erten, 2011; Kiuahara & Huefner, 2008; McCarron, 2020). Barriers identified in this research, such as lack of understanding, desire, and capacity from faculty, emerge as continual explanations as to why students may fail to receive accommodations.

### **Redemption of Accommodations Through a Public Policy Lens**

Regulations and guidance stemming from, most notably, the Americans with Disabilities Act (1990), as amended (2008), as well as Section 504 of the Rehabilitation Act (1973) assist higher education institutions in developing policy implementation strategies and anti-discriminatory institutional processes as they relate to the rights of disabled and accommodation-seeking students. As these regulations are currently written, as guided by legislation, it is up to the student to recognize themselves as disabled, be eligible as a student with a disability, and engage in an interactive process to receive a reasonable accommodation.

Higher education policy and research has focused significantly on the social model construction of “barriers,” as demonstrated in the articles cited in the prior section. “Barrier,” as a conceptual analytic, is an important tool to understand the challenges disabled people face in the world and has become a core tenet of understanding access under a disability rights framework, although barriers are not without critique, especially within contemporary understandings of disability. The operationalization of barrier as a construction, for example, often leads to an understanding of access and accommodation as a before and after event: where access is denied, an accommodation is requested, a barrier is removed, and, finally, access is achieved. Barriers can complicate this analytic when the access goal, such as higher education, necessitates the barriers to construct it (Dolmage, 2017; Titchkosky, 2013). We also found that the concept of “barrier” and its analytical necessity to separate impairment and disability (Clare, 1999; Kafer, 2013) were inadequate to disentangle the experiences students were facing. To break free of these analytical constraints, we looked to other fields and approaches.

Public policy research, particularly administrative burdens literature (Baekgaard & Tankink, 2022; Halling & Baekgaard, 2023; Moynihan et al., 2016),

has done much to understand the nuances and minutia of public policy processes across many different contexts. Administrative burdens are frictions that service users face when trying to interact with a public service. The concept of “burdens” uses the constructed categories of “costs,” learning, compliance, and psychological, specifically, for a degree of analytical clarity to help describe the type of friction a service user is facing. These costs, such as not having documentation or not knowing a service exists in the first place, can quickly add up for a service user and lead to the non-use of entitlements. Burdens shift accommodations from a rights perspective, of before to after, to one of processual navigation, where accommodations are fluid, dynamic, and labor intensive to implement for the student. Administrative burdens are a powerful tool in the policy analysis field to account for challenges people face navigating institutions. While the framework supported our initial study aims, we quickly found that traditional administrative burdens did not fully describe the processes we were uncovering.

Other qualitative works in the administrative burdens field more fluidly highlight the observed frictions of service utilization, such as the idea of redemption (Barnes, 2021) and relational demands (Ybarra & Davis, 2023). We draw attention first to the accommodation redemption process. This language is taken from Barnes (2021) who explores the onerous experiences of service users navigating voucher-based public assistance programs *after* they are already approved administratively, such as when a person with a Section 8 voucher cannot find a landlord who will accept the voucher. While a traditional administrative burdens lens would miss this type of analysis, instead focusing the challenges a person faced receiving the voucher in the first place, Barnes (2021) operationalizes the term “redemption” to describe further costs that underscore why an entitlement might go unused. We also find additional clarity by utilizing Ybarra and Davis’ (2023) formulation of relational demands, defined as the frictions that occur relationally when attempting to implement policy. Ybarra and Davis (2023) use relational demands to understand teams of social workers and the relational challenges they run against as they navigate team-based service delivery. We see this phenomenon as applicable in a broader context of policy implementation as it relates to the relational demands students, staff, and faculty face redeeming accommodations together.

A reorientation of barriers as burdens allows us to think about accommodations processes within the realms of policy creation and implementation. Burdens open up analysis on an institutional level rather than through a more individualized and binarized ap-

proach of barriers. Through this model (see Figure 1), we can locate a specific site within the policy process itself, the relational redemption process, for a more structural analysis.

### **Student Relational Strategies, Self-Advocacy, and the “Acceptable Student”**

Analyses of relationality in the accommodations literature has been relatively underrepresented aside from notable work by Barnard-Brak et al. (2010), Woolf and de Bie (2022), and Yeager et al. (2022) who have described the way students engage in strategies to receive accommodations or disclose disabilities. As Barnard-Brak et al. (2010) explore, students engage in strategies, like playing down their disability or scripting conversations with faculty, that either help or harm their ability to receive accommodations. Woolf and de Bie (2022) similarly discuss the strategies and tactics that students use under the banner of self-advocacy skills and describe the harm that this self-advocating causes students when trying to receive accommodations.

These articles pair well with other critical research examining the types of disabled subjects that are deemed acceptable in higher education. Peruzzo (2020) describes how the students who most readily succeed in higher education institutions are those who actively act to accommodate for the institution itself. Peruzzo (2020) separates students into three categories, the “proactive student” who is at the ready to self-accommodate for institutional failings, the “impossible student” whose behavior or support needs are not adaptable to basic accommodation processes, and the “acceptable student,” the in-between who works with the institution to receive accommodations on the institutions terms, risking their access to classes should a hiccup occur. This work provides an outlook on self-advocacy that attends to the institutional and developmental effects it has on students. We use this literature as a background to inform us of the relational approaches taken by students and the harm that these approaches cause them.

### **Critical Disability Studies as an Analytical Foundation**

Thus far, we have reviewed how higher education scholarship gives us empirical information about accommodation delivery while the public policy field gives us a way of foregrounding our approach in a processual institutional analysis. However, we still lack a grounding for taking apart what is happening in the moment. In other words, we have reviewed the constructions of the literature (e.g., burdens, demands), but what material conditions (e.g., space, time, and

the dynamics of power that bend them) generate these constructions? In order to find this material grounding, as well as fulfill a stated theoretical need in the field (Kimball et al., 2016), we look to disability studies to anchor more critical modes of analysis. We place our analysis within the frameworks of the critical disability studies work of Dolmage (2017), Price (2024), and Puar (2017).

Dolmage (2017) and Price (2024) focus their work on exclusion in higher education. Both have described how the processes that produce and construct disability within higher education institutions are the same ones that exclude it. Through her disabled academics study, Price (2024) examines the effect that attempts to receive accommodations have on faculty’s self-perception and their relation to the higher education institution that employs them. Price (2024) introduces “crip spacetime” as a way to name the embodied realities of, what she states, are uniquely crip experiences of seeking access. Utilizing this frame, Price (2024) outlines the emotional, spatial, temporal, and overall material costs that occur for faculty when they attempt to receive accommodations at their place of employment. We use crip spacetime throughout this article as a container to name the many realities of disabled students, wholly different from the realities of non-accommodation seeking students.

Puar’s (2017) work on debility, capacity, and disability has become fundamental within critical disability studies and provides us with a way to describe the material processes occurring in the moment between students and faculty. Contrary to the social model, where disability is a constructed experience of oppression, disability for Puar (2017) becomes a taxonomy, something that is categorized and recorded as a distinct population. Puar (2017) maps how disability has been created historically, through the political activism of specific people advocating for recognition as a constructed minority class. Compared to disability as a legible political identity, certified by medicine, identity, and citizenship, debilitation for Puar (2017) is a relation of power wherein access to space and time, and the movement between them, is leveraged. Whereas disability describes an exceptionalized, static, and legible category, debilitation describes the ebbs and flows of bodily capacitation. Puar (2017) delineates the following:

Debility addresses injury and bodily exclusion that are endemic rather than epidemic or exceptional ... disability and debility are not at odds with each other. Rather, they are necessary supplements in an economy of injury that claims and promotes disability empowerment at the same

time that it maintains the precarity of certain bodies and populations precisely through making them available for maiming. (xvii)

Puar's (2017) work explores how the construction of disability, in its categorization as a protected rights-bearing class, has acted to hide and perpetuate certain forms of debilitation, such as state violence, while, in the same breath, worked to capacitate more privileged populations, such as those who are more readily able to use disability as a lever for gaining power. We use debility as the material relation of what is more broadly constructed to be administrative burdens, relational demands, or barriers. As such, this article uses the relationship of debilitation, capacitation, and disability as a foundation of understanding student interaction with accommodations-as-policy implementation.

The critical disability studies methodological frameworks of "crip spacetime" and "debility," undergird our analysis of accommodation policy processes. While crip spacetime names the embodied realities unique to the interviewed participants, debility names the changing materiality of these realities. With these concepts, we are able to engage in an analytical methodology that is materialist, relational, and rooted in attention to power.

### Study Aims

This study aims to understand why students face persistent challenges gaining access to accommodations in higher education institutions. Our major questions are as follows:

1. How do students navigate the accommodation process in higher education?
2. How do student narratives reflect barriers and/or burdens?
3. How do students make meaning of these barriers or burdens more broadly?

### Methods

Studies asking college students with disabilities about their experiences of accessing, redeeming, and using their approved accommodations have varied methodological approaches to recruitment, data collection, and analysis due to a variety of the challenges in obtaining a representative set of participants (e.g., Kimball et al. 2016; Fleming et al., 2017 O'Shea & Meyer, 2016; Marshak et. al, 2011). Given this methodological variety, the research team of the present study prioritized a narrative approach to interviews and analysis to collect a wide range of student expe-

riences with attention to where, when, and how within this process the "action" occurred in participants' accounts of their experiences (for more on this approach, see also Connelly & Clandinin, 1990; Clandinin & Caine, 2013; Magolda, 2009).

### Participants

Participants were 13 students who attended a large public research university in New England in the United States, and who were currently receiving or had received accommodations in the past as undergraduate students at this same university. Students were recruited and selected using a wide-net marketing campaign across campus with the goal of creating a diverse set of cases that would allow insight into varied student experiences (O'Shea & Meyer, 2016). To accomplish this, researchers disseminated marketing materials via academic departments, cultural clubs, student support services, posters, and word of mouth. Participants came from a diverse set of socioeconomic, geographic, educational, and ethnoracial backgrounds.

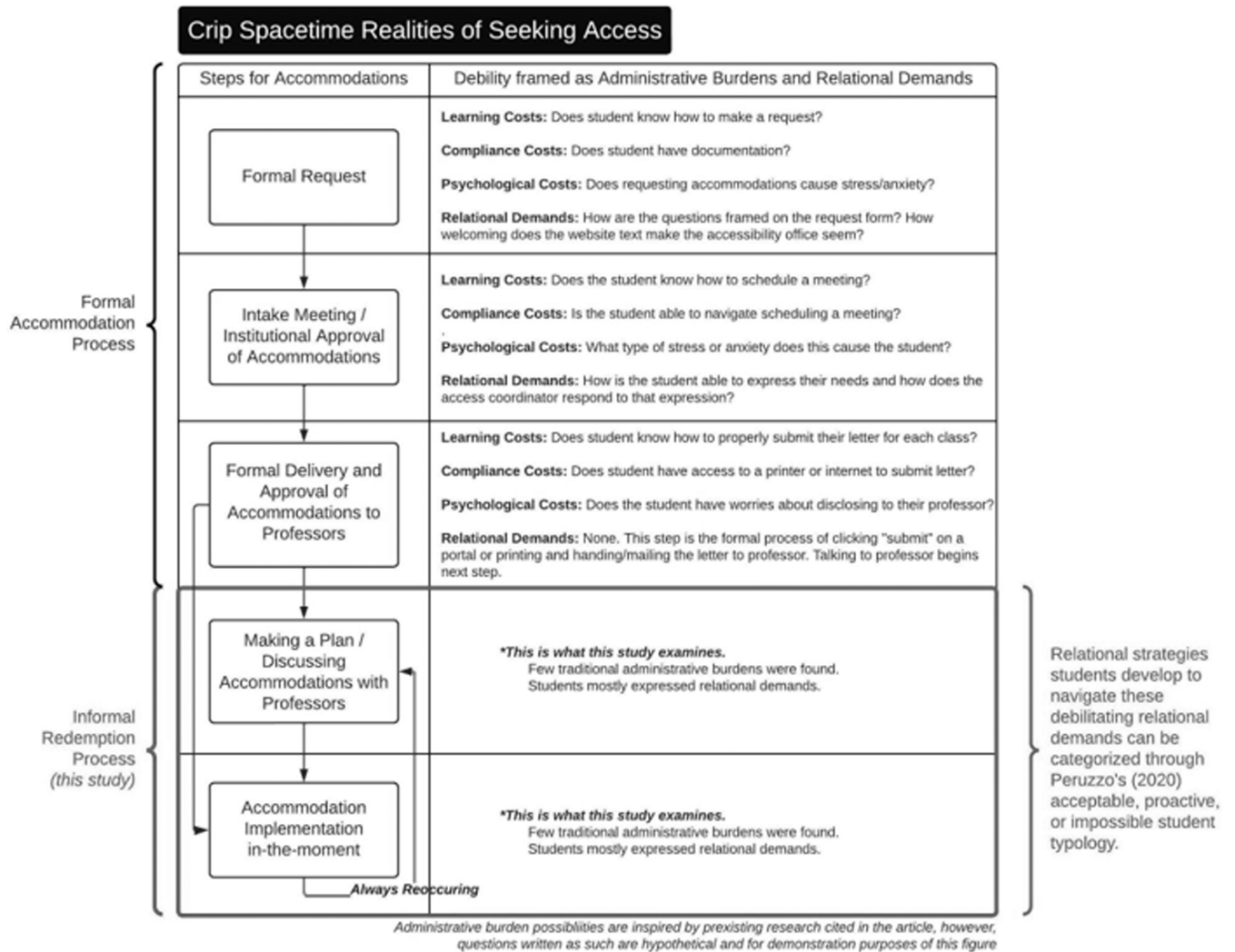
Interested students filled out a short survey with their name, contact information, confirmation that they were an undergraduate student and that they had received or tried to receive accommodations. The survey yielded 19 initial respondents; two were disqualified for being graduate students. Follow-up emails and text messages were sent to 17 interested students with the goals of the study and informed that participation would entail a 45- to 60-minute interview scheduled either for in-person or via Zoom for accessibility. Of the 17 students, 15 responded to schedule an interview. Two participants did not attend the scheduled interview and did not respond to further inquiries. Participants were informed that their interviews would be recorded, transcribed, and saved with only their chosen pseudonyms for privacy. They were not promised an incentive but were thanked after their participation with a \$25 gift card.

### Instrument and Procedure

The interview protocol was designed for a semi-structured interview utilizing narrative inquiry. After requesting brief historical information from students, such as their high school experiences and upbringing, participants were asked to tell their accommodations experiences as though they were telling a story. Follow up questions asked participants to talk more about aspects of the particular story they shared. Questions focused on place, time, relationships, and how stories were situated within the broader institutional context (Clandinin & Caine, 2013), tying lived experience to social structure for change on campus (Kimball et al., 2016).

Figure 1

Crip Spacetime Realities of Seeking Access



*Note/alt-text.* This figure outlines the structure of our analysis and how we are using the frameworks outlined in the literature review. The figure shows five steps of the accommodations process: formal request, intake meeting, formal delivery of accommodations to classes, making a plan with professors, and accommodation implementation in the moment. Each step shows possible administrative burdens and relational demands that a student might face. The last two steps are marked specifically as the redemption process while the first three steps are marked as the formal accommodation process. To the right, a passage discusses the connection of student navigation of these processes and connects it to Peruzzo's (2020) typologies.

Both authors conducted three interviews together before conducting interviews separately. In doing so, our team quickly became attuned to the ways in which experiences students shared were nearly universal. However, each interview provided variation in insight into the meaning made of the experiences by students themselves and the extent to which these experiences shaped students' identities (Magolda, 2009; McAdams & McLean, 2013). Here, Peruzzo's (2020) three descriptions helped us attune our analysis both to the actual experience of accommodations redemption as well as students' internalizations of their roles as the proactive, impossible, or acceptable student. There was a range of self-awareness or reflexivity about the extent to which strategies students used to secure accommodations were hindrances or helpful. Therefore, even in cases in which a student sees the value in their relational strategies, we use Peruzzo (2020), Price (2024), and Puar (2017) to point to ways that this empowerment or pride in their experiences reflect how student debilitation is being masked by internalization of a normative institutional culture. We stopped recruitment when this varied range was no longer extended, as we had reached conceptual depth saturation (Nelson, 2017).

### Analysis

Transcripts were coded in Dedoose and analyzed first using narrative analysis (attending to "plot"; Crossley, 2000; 2003) identity (Josselson, 2011; McAdams & McLean, 2013), and broader social, cultural, institutional context (Clandinin & Caine, 2013). In addition, deductive codes were based on extant theory and the empirical literature on both accommodation barriers and administrative burdens to understand the burdens students faced in receiving accommodations. This process required listening to and reading interview transcripts multiple times, meeting weekly to discuss codes, and resolving discrepancies systematically by refining definitions and examples of key concepts. Through this process, researchers soon agreed on an emergent commonality—the laborious nature of the redemption process. Next, we conducted a more refined round of coding focused on dyadic interactions to identify strategies students utilized and the relevant outcomes and consequences.

Draft cases were written using student quotes and we conducted peer-checking of these with participants, as well as students and colleagues who access and implement accommodations but who did not participate in the study, to ensure rigor and that we were not drawing on outliers' experiences (Creswell, 2013, p. 262). This step was a concrete way to prioritize participants and their peers as agents and co-con-

structors of the meanings in their narrative (Crossley, 2000; Josselson, 2011). In addition, the two authors share experiences as disabled students, accessibility service practitioners, and/or faculty members who are routinely and reflexively engaged with accommodations processes. In this way, we also had lived the stories that were shared with us (Connelly & Clandinin, 1990; Kimball, et. al, 2016). Authors use the term "disabled student" because all students identified themselves in this way, which may reflect their relation to disability services. We note that the selection of cases and quotes used in this paper are representative of elements of all participant narratives. However, the cases utilized and revisited provide the most clear and concise quotes to detail the material processes of interest.

### Findings

#### **"Building a Rapport": A Case Study of Initial Contact with Faculty**

Every student we interviewed vocalized a necessary relational process between themselves and campus stakeholders in order to fully redeem their institutionally-approved accommodations. Most students we interviewed had learned that creating a rapport with faculty, often before class had started, was the best way to receive services each semester. This necessary step debilitated their access to time in comparison to non-accommodation seeking students. For example, one of the interviewed participants shared the following:

As a student, you need to put aside time to seek out the professor separately and explain yourself to them. I don't have the time or the energy that it takes to put in the required good first impression with a professor, and they will give you attitude. Last semester, I had [a professor]...and it was three quizzes a week, 50 problems a week to do his homework, and then two lectures. That's a lot. I told him, I said, "I have an accommodation." He asked me how it was fair to other students that I got to hand in assignments late. I told him my accommodations aren't a privilege. I had to tell him that.

Another student shared a similar experience in their story of the accommodations process:

I emailed somebody about it. I said that it's discrimination to require me to have extra conversations about my rights...The response I got was, I'm going to quote this, "There is simply no way

to remove the student from these necessary conversations without also disempowering students by speaking for them.” True empowerment would be not having to explain myself. I don't owe my professors an explanation about my health conditions. To meet with them and have to be like, “Hi, this is my whole life.” That's not for them to know.

A third participant, Sonny, was not immediately aware of the relational process necessary for speedy accommodation redemption upon entering college. Sonny found a “noticeable difference in the speed of accommodations being put into place” only after they began engaging in relational strategies.

When I first started with disability services, I didn't feel as much need to interact. I did have disability services, and I also had friends that would highly encourage me to talk with people right away. I have a learning specialist and I think it was them who really got me to start doing it one semester. They were like, “Just try it, see what happens.” There was a noticeable difference in the speed of accommodations being put into place. I felt more comfortable talking to my professors about just accommodations or non-accommodation things, because I already knew them from day one. I wasn't just contacting them when there was a problem. It was more of a relationship and less of a, “I come to you when something's wrong.”

Sonny shows surprise that this relational strategy, a behavior they were not told was part of the process until they were coached to perform it, produced better and faster results. This surprise points to this redemption process as a hidden or less formal part of the accommodation implementation policy.

This redemption process was also not seen as debilitating by the student. Sonny expresses relief that they are able to use relational strategies to balance any type of negative reaction to accommodations (“I come to you when something's wrong”), regardless of the exertion of time and labor that they need to put into this process. This relational strategy, and the student's relief for it, seems to aid acceptance of, rather than resistance to, any hesitancy towards implementing accommodations by faculty. Through Price's (2024) and Puar's (2017) work, we can understand this redemption process as a reality of crip spacetime, where time is used to debilitate Sonny for trying to receive adequate access in their class. Despite Sonny's perspective that this was a relational strategy that improved their outcomes, Sonny's time and requisite deference to power is demanded only to redeem their

already approved accommodations. Because of this debilitation, Sonny adapted their behavior, acting as the proactive student.

Students who successfully found a way to redeem accommodations most often did so through behaviors shaped by prior learning experiences, either in classes or through coaching programs. Sonny's behavior in the prior quote, for example, was modulated via their learning coach. Emily, quoted below, found a similar path through other means:

I started sending out my accommodations, like I'd put the letter in on ClockWork, but then I'd also make a PDF and I would send an individualized email with a template, and I'd be like, “Hey, this is [name]. Here are my accommodations from Disability Services. I just wanted to reach out and say hi. I look forward to hearing back from you in terms of any questions that you have.” That's been really helpful because it makes me seem like I'm not a jerk and that I gave them a chance to ask questions.

When asked how they learned to take this step, Emily replied, “I learned to do it on my own.”

Emily's relational strategy for introducing themselves to faculty is similar to Sonny's. Both quotes speak of a desire for the student to counterbalance any possible negative reception from faculty with more positive relational experiences. Compared to Sonny, however, whose behavior was modulated via coaching from a learning specialist, Emily's relational strategy was shaped by their past experiences. These two experiences allude to a debilitating process whereby students come up against relational demands and develop relational strategies to ease accommodation redemption. Just as with Sonny, Emily developed debilitating relational strategies after facing the relational demands of the accommodation redemption process.

When Green described this process and how it affected their capacity to be a student, they stated:

It builds a connection with my professor that I feel like I probably wouldn't have if we didn't have those early conversations, so that's like the one potential benefit I can see because we had talked so much. Um, also because I'm a bit of a teacher's pet who likes to raise my hand all the time, like that building of rapport...but there's a lot of downsides to the time investment it takes. I often undersell my needs.

Green's experience serves as a foil to the two prior experiences. While this student engages in this relational strategy of "building a rapport," they did not find out about it through trial and error, nor were they instructed to do so by a learning specialist. Green sees this strategy as an extension of who they are. They already possessed the relational strategies to utilize this tactic and see it as an extension of their identity: "a teacher's pet," or a proactive student, as Peruzzo (2020) would identify. Strategies like "early conversations" and raising "my hand all the time" ensures that Green maintains a quality relationship for when relational demands surface during the redemption process. Green admits, though, that this process is one of *crip spacetime debilitation*, stating there are "a lot of downsides to the time investment it takes" and "I often undersell my needs."

While students without accommodations may not feel a need to develop relations with faculty around access, it seems from our interviewees that positive and affirming relationships are imperative to redeem approved accommodations in the classroom. This required relational process allows faculty to debilitate students, restricting access to the classroom. These strategies operate within *crip spacetime* as students without accommodations are not required to go through these processes. Within *crip spacetime*, these students embody their own realities as they relate to the university, developing into different typologies of the acceptable, proactive, or impossible disabled student, as outlined by Peruzzo (2020).

### **"Oh, you don't really need it:" Debility in Continuous Accommodation Redemption**

Not only are students required to employ relational strategies at the beginning of the semester, they are also forced to re-engage with internalized stigma, self-doubt, and their own identity formation as they navigate these continued redemption processes. With every accommodation comes the possibility that a student must engage with the professor in some form of relational strategy each time they need to redeem it. Rebecca shared the following:

It's more about that social anxiety is not a visual disability maybe. I feel people that are physically disabled deserve that more than me because I'm physically able to go to class, things like that. I feel my disability isn't that bad. Relatively, it's not. There are way worse situations I could be in. The thing is, I can just not use them. I don't use my extra time accommodation because I've never needed it. That also makes me feel better. I don't want to take advantage. I don't want to be

tempted to use them when really I just say, want to sleep in. It's things like that.

Rebecca then explained decisions not to use accommodations further:

I try to talk myself out of it and say like, "Oh, you don't really need it." A lot of times I choose to just lose attendance points because I feel guilty. I feel the teachers—I have no reason to think this—but I feel that the teachers will judge me or get mad at me, and they don't, but something tells me that I shouldn't do it. I feel 50% of the time I would just choose to lose points. I don't know what it is. I think it's the anxiety of having to say, "Hey, I couldn't go to class today." I wish it was easier but it's already so easy.

We heard this type of internal processing or self-talk across most participant experiences. For Rebecca, even the fear of relational engagement with faculty during the redemption process alters their behavior and leads to worse grades. Rebecca finds redeeming their accommodations to be more debilitating than taking a reduction in points. Their assertion that "it's already so easy" points towards the banality of these continual relational redemptive processes, existing under the guise that they are a non-debilitating and unexceptional component of equitable access as a disabled student. Again, we can utilize Price's (2024) construction of *crip spacetime* to hold these realities. While internalized stigma has been a common finding in related research, we point to the importance of contextualizing the co-construction of stigma within these required and continuous relational interactions in the redemption processes. We understand these processes as a constant fight, articulated before as a "cycle of disempowerment" in Francis et al. (2019) rather than a binarized before or after event. For students, the need to reach out to faculty every time they will miss class forces them to reencounter thoughts about what they deserve as a disabled student.

James, quoted below, puts a fine point on the debilitating relational realities when faculty members have preconceived notions of accommodations.

I have had some professors [who] the minute they find out I have [accommodations], I feel like they roll their eyes or something at that. It's like they don't want to deal with it. I'm a little bit more paranoid about how a professor may see me as a liability or that they just don't believe in those things or accommodations, or it means more work for them.

From both Rebecca's and James' quotes, the mere possibility that an accommodation letter may trigger negative emotions in faculty is enough to debilitate students via heightening internalized stigma. Further, faculty responses shape the behavior of students navigating the redemption process. "Feel[ing] like they roll their eyes" leads the student to understand themselves as a "liability." In this case, stigma is operationalized by faculty through their own relational strategies in order to leverage access, thereby leading to accommodations going unredeemed. This outcome fuels the cycle of disempowerment, not as a barrier event with a before or after but as a continual process through which relational debilitation (via burdens and demands) holds students back from engaging in the redemption process in the future; in other words, it defines their *crip reality*.

### **"I don't know what you want from me!" Relational Strategies and Limits of Self-Advocacy**

In some instances, denied accommodations were not ones that would require relational strategies for redemption; however, interactions with faculty still proved to be debilitating. Grey explained their debilitating experience:

I had a stats class, and math is already one of my weaker classes, but for accommodations I'm supposed to be given a calculator. It's just a basic tool for me, just because I can't do anything in my head easily. I sent [the accommodation] to my professor, and she received it. Then when we had an exam coming, I had a calculator and she said it wasn't allowed. I told her it was in my accommodations, and she said, "No one's allowed a calculator, no exceptions." I said, "Okay," sent an email to DS and told them, "Hey, my professor's not letting me use a calculator, but you guys said that I can use one." They said, "Yes, that's totally not okay of her. You're allowed a calculator." They sent an email to her, and the funny outcome was that she was reluctant to let me use it. I got to use it, but she was like, "You get to use a calculator. Don't get used to it." [She] didn't say that, but it was kind of her attitude that, "You get to use it for *this* [emphasis from the participant] exam." Using the calculator definitely made the exam a lot easier for basic and advanced math problems. I did feel slightly bad using it, because she kept bringing up the point, "No one's allowed calculators, no exceptions." There was a little bit of heavy guilt.

In Grey's case, the professor uses the presence of a calculator as justification to implement relational

demand towards its use, even when this type of accommodation does not generally require a relational process. Only through Grey's relational strategy of leveraging the authority of disability services were they able to successfully redeem their approved accommodation. Even still, the professor was successful in utilizing their own relational strategies to debilitate the student and reproduce ableist ideas about higher education, making the student feel, "a little bit of heavy guilt..." and continuing a cycle of disempowerment (Francis et al., 2019).

Grey's experience highlights how students are consistently required to refine and improvise relational strategies during the redemption process. At any point, faculty may open negotiations as locations of leverage. Emily also spoke of behavior modification.

I had a teacher this semester say, "Hey, so the lectures are recorded, but do you still need a notetaker?" I've learned from before that I should just say yes because if I don't, then I run into problems, so I said, "Yes, I did." It's not that big of a deal. But yes, I do an email and allow them to reach out and walk through any of the stuff that they want to go through.

Emily, who was quoted before as being a savvy navigator, describes the process of their own behavior modification clearly. Due to difficulty redeeming notetaker accommodations in the past, the student demonstrates a self-taught and highly technical relational strategy shaped through prior experiences of discrimination. In the past, this student made a strategic error in their self-advocacy, thereby not redeeming their approved accommodations during the redemption process. They now navigate this process through a "just say yes" strategy. This student learned that any hesitation, or rather any unrefined relational strategizing, will lead to a lack of accommodation implementation. The professor, on the other hand, is deploying their own relational strategies. What can be seen as a check-in further debilitates the student to renegotiate an already approved accommodation, bending time against the students favor. The student has already self-advocated for this accommodation with disability services and has sent the letter to their professor. This faculty strategy, which could be considered supportive without further critical analysis, constructs an oft-hidden context for the accommodation to go unredeemed.

This relational debilitation not only occurs between students and faculty. Multiple students discussed maneuvering through debilitating relational situations during accommodations processes with

university staff members. James, quoted below, discusses their difficulty navigating the relational demands required to redeem testing accommodations

I would get so anxious about having to talk to [the testing accommodation staff] that I actually had a TA come with me for one of my classes that year, because I'm like, "Listen, she's not going to listen to me. The person at the testing center is not going to believe me, probably about needing to reschedule this test or is going to count it as late or whatever, and I need you there to vouch for me because I just don't think they're going to believe me." I had the TA come with me, and the TA was super nice. I don't know how [the testing accommodator] worded it, but she was like, "Hey, I'm just here saying that this person needs to take the test again or to reschedule another time to take the test." They even gave the TA an attitude, and they got mad at us. They were like, "Oh, basically, you don't trust me," or "you can't do it yourself, you had to have somebody there to help talk for you." It's like, "Yes, because I have an anxiety disorder, and I suck at talking. I don't know what you want from me!" It's very anxiety provoking having to go through that.

James found it difficult to operationalize the relational strategies necessary to redeem their accommodation. Like the student who reached out to disability services to redeem their calculator accommodation, this student appeals to the authority of whom they believe to be a legitimate institutional stakeholder—their TA. In this instance, their tactic of bringing in an authority figure backfires in their attempt to redeem their accommodation. While students refine relational strategies, outcomes are not universal and even the same strategy is not guaranteed to work every time. This inconsistency further results in disparate outcomes dependent on small variations in context. The student engaged in self-advocacy strategies that an accessibility office might coach, yet they were still debilitated in this process, stating "It's very anxiety provoking to go through that," exasperatingly stating, "I don't know what you want from me!" This student was in their seventh year as an undergraduate—tying debilitation to completion.

Julia, who faced difficulty redeeming their van service accommodations during the first week of classes, demonstrated what occurs when a labyrinth of relational strategies required for accommodation redemption are unexceptional to campus stakeholders. They shared the following:

One of my professors last semester, it was the end of the first day of classes, and I was moving really slow to leave the room, and my professor said, "Are you okay?" The kindness he showed me was just overwhelming, and I got really upset, and I was steadying myself against a table, and I was like, "am just overwhelmed by the work, the energy required to get around campus. I feel sick." He was really nice to me. Then he got the dean of students office to call me. I had a case worker from the dean of students call me, and I told her about what I was experiencing, and she said, "Okay, then we really need to get you to drop out." I was like, "No, I'm not saying I want to leave. I'm saying I need help." She was like, "It just sounds to me like maybe this wasn't the place for you, and we should just get the ball rolling on you getting unenrolled." I was like, "This is not why... you're not helping me" I just stopped responding to her emails....I have a right to meet my personal threshold for excellence. I graduated as a valedictorian from my past [junior] college, which is something that I never thought I would do. Telling me that I should accept that I can't keep up with everyone else is actually really fucked up. It's psychological abuse. That's how I feel.

Julia's relational labor— sharing their overwhelm with a professor on the first day of class—was interpreted as inadequate capacity by the dean and worthy of exclusion. The administrator did not see this self-advocacy as an attempt to redeem accommodations already institutionally approved. Rather, they saw it as being an impossible student (Peruzzo, 2020) and suggested exclusion was the appropriate response. Without seeing this hidden redemption process and its debilitating nature, the oppression that disabled students face may continue to be interpreted as inadequacy, justifying grounds for exclusion.

Students are deploying a great amount of emotional, mental, and physical labor into relational strategies. However, self-advocacy does not always work and can even make things worse. In these instances, we see faculty, staff, and administrators engage in behavior that is debilitating to the students' capacity to redeem their approved accommodations. One burden overcome leads to another burden, the next more hidden and abstract with debilitating effects.

**"Oh, but they're a good kid ...we'll save them half a point:" Bargaining and Identity-Development**

As demonstrated, students modulate relational strategies to navigate a debilitating accommodation redemption process. All strategies we have discussed

thus far are rooted in a type of transactional approach we call bargaining. Bargaining is the materiality of relational strategies in which a student trades something for access during the redemption process. Students most often trade time and emotional labor to redeem accommodations from faculty, similar to Prices' (2024) findings. More subversive, students may even trade their own identity as a student, such as becoming a "teacher's pet," or Peruzzo's (2020) proactive student, to receive accommodations.

This process of bargaining is exemplified by Emily's experience, described above, about sending out a letter to faculty to say hello and making herself available to answer any questions they have. Emily said they reach out to faculty in this way to not seem like a jerk. There is an implicit belief in this remark that receiving accommodations can make one "a jerk" or cause a negative appraisal. Rather than countering this implicit belief, understanding that accommodations are a right for equitable access, the student attempts to bargain away the costs of being a "jerk" with a set of satisfying relational engagements for the faculty. In this way, Emily is bargaining the negative treatment attached to redeeming accommodations with their relational labor and time to get ahead of this reaction. These accommodations have already been approved and the letters have been signed, however, the student still views this relational bargaining as necessary to redeem their legal rights.

Green, quoted as being a teacher's pet before, notes their relational bargaining through their desire to be a good student:

I think in that space, in that moment, I was like, "Well, if she knows why I got a worse grade, then I won't feel as bad because I have a big dynamic of like if I'm given a bad grade like I might be disappointing the professor or I might not be showing that I love their work or that I care for them." So, like, even when excused absences are fine, I always try to communicate...so, there was relief specifically from at least she won't be disappointed in me or not understand why I was doing so well in participation in class and understood all the homework assignments but didn't do well on the exam.

Green's limited capacities around exam-taking must be bargained with their emotional labor when in discussions during class. This student engages in bargaining for both grades as well as faculty respect. This respect often translates into letters of recommendation, references, and access to professional opportunities networks critical for post-college success. Bargaining here for a chance at reciprocity, a future,

and some agency, the student seeks to create a location for leverage during the redemption process in order to reduce the likelihood of costs accruing (Davis, 2022). Students will attempt to pre- and re-position themselves as a model student, what Peruzzo (2020) calls the proactive student, to counterbalance the negative perception related to their need for accommodations.

Emily's explanation of her experiences demonstrates this effort to be a model student:

I had a teacher, a Bio 1 teacher. The disability test-taking centers opened from 9:00 to 5:00. I would have class that day, the day of my exams, and then we'd go to the tests later on that night from 7:00 to 9:00. Basically, I went, "Okay, I need to book extra time for my exams, and I would like time and a half." I talked to my teacher, I said, "Hey, I would like extra time. Do you think we can set this up from 7:00 to 10:00 at night? I know it's a tricky ask, but you also have class during the day, and it doesn't make it easy." She was like, "No, I can't, that's too late for my proctors." I was like, "Oh, okay, let me see if I can book it through the academic testing center." I looked at the times that they had available, and I did not have three hours consecutively during my days, during the times that they were open where I could take my exam. Basically, unless I wanted to miss an entire class, I couldn't take my exams with extra time. She was like, "I'll put you in a separate room with a TA." The TA didn't mind, she just did her homework, nothing big. I scored 20 points more on that. I got a 93 on that exam because I could finish my open responses. That to me was the first time that I had ever been so frustrated by accommodations and how [the institution] functions. I didn't [reach out to disability services]. I just saw it as the times that they were available and I was like, "I don't even wanna try," and just gave up.

When asked what the conversation was like with the professor, Emily responded with the following:

It was stressful. I think that I'm always afraid to ruffle some feathers when it comes to accommodations because it stinks having to ask for them to begin with. It should just be a right. She was like, "I guess we can make it work ..."

When prompted further about whether Emily thought this encounter changed the dynamic with the professor, Emily responded with the following:

Yes, I definitely saw it as like I didn't feel like we were as close or as friendly as before. I felt that because of my accommodations, she was annoyed at me. That is always something that when I ask for my accommodations, I always feel like I'm annoying and that people are going to get irritated, and it does affect grading and whatnot. I feel like, to an extent, there's a little window where they can get by with emotional grading.

Emily was asked to expand on the idea of emotional grading.

Yes, I think that if there's an open response...instead of taking away two points, you take away a point half. I hear the process that goes on sometimes when grading open responses and stuff like that, and I hear the friendliness in their voice. They're like, "Oh, but they're a good kid. They try. We'll save them half a point."

Emily's story demonstrates the multi-layered processes of bargaining. Emily starts by experiencing administrative burdens attempting to access accommodations. They then rely on their practiced relational strategies. First, they push through internalized stigmas and fears of discrimination, fears rationalized by prior experiences, to talk to the professor about the burdens they are facing and ask again for an alternate accommodation. After successful bargaining, they now have access to an appropriate accommodation and are able to complete the test, answering the open response. This approach allows the student to gain further access to bargain with what they call "emotional grading" where they trade being a "good kid" for sympathy points on a test. This experience reifies Emily's understanding that to receive accommodations, one needs to counterbalance being "annoying" (disabled) with being "a good kid."

### Discussion

This study elaborates previously hidden components of the accommodation redemption process. It demonstrates the required relational demands placed on students wherein they must engage with faculty, staff, and themselves to redeem their approved accommodations in real time. Faculty actions like an innocuous check-in or a pointed eye roll act to leverage cultural biases about disabilities to make redeeming accommodations debilitating. We find that students often develop relational strategies that contain an inherent element of bargaining, such as appealing to authority, just saying yes, or smiling more in class

to ease their navigation of these demands during the redemption process.

Students either accept their crip spacetime reality, engaging in this process happily to get through coursework, or they spiral, intensifying the stigma, guilt, and shame around accommodations. Both pathways, and the many more in between, modulate student self-identity and development as they navigate this debilitating policy process. The hidden and unexceptional nature of this debilitating redemption process means many students are left on their own to develop strategies and process harm. Some learn these behaviors through learning coaches or come prepared to engage in these strategies when they enter college. Other students, as we have explored, are not able to readily utilize these strategies for accommodations redemption.

Students who navigate this process well refer to themselves as "teachers' pets" or "good kids." Others note that redeeming an approved accommodation made them "a jerk" or that there was some negative appraisal by faculty when they had to redeem an accommodation. Rather than resisting these ideas, students develop strategies to navigate them, tacitly acting to reify abled norms rather than resist them. Students who do not conform to this model, as we found, are told to leave. This may have long-term impacts on students. Building from Peruzzo (2020), we find that these relational demands modulate student subjectivity, allowing the institution to accept those able to conform and reject those who can or will not.

From here, we follow Woolf and de Bie (2022) to promote a critique of self-advocacy. Under our framework, a student who self-advocates may act to reproduce the ableist norms of institutions. We note explicitly that, in detailing relational strategies, we do not seek to help students conform, to become acceptable subjects, or build up their social capital. Our goal is not to orient these findings within a medical model of deficit nor advance recommendations for social-skills-training, executive function coaching, or the building of some relational repertoire. We caution against instincts to build student resilience or self-advocacy as answers to the structural debilitation described here. Instead, we recognize that self-advocacy is co-constructing the reproduction of the current ableist paradigm. This paradigm that tells students the debilitating and discriminatory processes they face are okay, that they must earn non-violent treatment through behavior modification, and, if they cannot do so, that they deserve to be excluded.

## **Limitations**

Limitations of this study include lack of categorical demographic identification and lack of participants from other colleges. While we asked students to describe their identities and positionality in their own words, we did not record categorical demographic data. This could be seen as a limitation in our ability to identify students by race, age, class, or gender. Because this research is not comparative and rather seeks to explain a process, we believe comparisons between demographics would be best suited through further research utilizing these frames. The limitation we consider pertinent would be that the participants were all from one large university. While the researchers and member-checkers have worked at and/or been students in other institutions where this phenomenon also persists, more empirical research may assess the generalizability of findings across institutions with varied policies and practices.

## **Recommendations for Researchers and Practitioners**

Future research should further interrogate these locations of relational dynamics. More specifically, examining staff and faculty relational strategies may be important to gain a more fulfilling scope on how these practices interact with one another. There is also room to examine a more comparative analysis utilizing this frame, where intersecting populations and their experiences of disparate outcomes during this process are examined. We also see room to map ways in which relational processes required for redemption concretely link to the chilly campus climate experienced by students, staff, and faculty with disabilities (Kimball et al., 2016).

As practitioners, we often guide students navigating this complex assemblage of services. We must recognize that between meetings with faculty, staff, and other support networks, students put in an overwhelming amount of relational labor to receive what is their legal right. How are we to guide students? We recommend practitioners connect with students on a personal level, talk about structural debilitation, institutional navigation, and relational labor while probing them to think critically about the way the world and institution has been constructed. For example, when we talk to a student about introducing themselves to a professor, discuss the structural forces that demand this action rather than uncritically suggesting the student says, “thank you” and “please” to redeem their accommodations. Discuss accommodation policy, be frank about its shortcomings, and work with students to organize with campus stakeholders for structural change rather than solely self-advocating. These re-

searchers talk to students about being “institutional navigators” and encourage them to organize together for greater access. This approach supports a greater structural understanding of students’ positionality within the institution and more critically frames them as an actor in a policy process.

## **Conclusion**

These findings outline a particularly bleak and material process that students with accommodations must navigate lest they risk going unaccommodated. By constructing an analytic threading theoretical and empirical insights from three distinct fields: higher education, public policy, and critical disability studies, we highlight new aspects of student experiences within institutional structures. We also introduce new ways of unpacking disability narratives that provide a blueprint for organizational change. Utilizing the language of redemption and debility explicitly may assist in communicating student stories to administrators or building out more equitable policies and practices. This study contributes to the accommodations literature by describing a common experience of institutional debilitation within accommodation policy implementation that has been tacitly understood and experienced by practitioners and students but has yet to be formally articulated in the literature.

As researchers, we hope future studies will integrate these frameworks to more critically articulate the experiences and narratives of disabled students in higher education. As practitioners, we should be increasingly aware of our work with students. We should seek to balance empowerment and self-advocacy guidance with discussions on power relations, debilitation, and institutional change. Without doing so, we may reproduce inequitable ableist debilitation and fail to uphold anti-discrimination laws. As Dolmage (2017) writes, “We must design a future for higher education that acknowledges but rejects its eugenic, steep steps history, refuses to accept an ongoing series of retrofits and slapped on accommodations, and values instead the unpredictable times and places of disability to come” (p. 124).

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### **About the Authors**

Griffin Leistingering received a Bachelor of Science in Psychology from the University of Massachusetts Amherst and a Master of Public Policy and Administration from the same university. They are currently Assistant Director of Accessibility Resources and Services at Hampshire College and teach disability policy studies as a part-time lecturer at the University of Massachusetts Amherst. Griffin's work focuses on the functions and impacts of power-based relationships within institutions, with a particular focus on disability in higher education settings. They can be reached by email at: [gleistingering@umass.edu](mailto:gleistingering@umass.edu).

Bridgette Davis received a B.A. degree in English and Journalism from Simpson College, and an A.M. and Ph.D. from The Crown Family School of Social Work, Policy and Practice at the University of Chicago. Previously, Davis worked as a middle and high school educator and instructional leader in Atlanta Public Schools, Teach For America, and Noble Schools in Chicago. She now serves on the Education Advisory Board for the Point Foundation. Davis is currently an assistant professor in the Department of Public Policy where her research focuses on U.S. social welfare policy implementation with attention to the consequences of retrenchment, variation, and complexity. She is most interested in understanding these dynamics as they dually shape the conditions of life and work for marginalized young adults and for workers implementing policy within human service organizations. She can be reached by email at: [b.davis@umass.edu](mailto:b.davis@umass.edu).

# Examining College Students' Willingness to Support Peers with Down Syndrome

Aesha John<sup>1</sup>  
Sydney Sanders<sup>1</sup>

## Abstract

An important factor linked to the retention and success of college students with intellectual disability (ID) is support from their peers without ID. In this study with 63 college students without ID, we examined whether self-efficacy and intergroup contact are linked to participants' willingness to support their peers with Down syndrome. To test the role of intergroup contact, participants completed pre- and post-tests and were randomly assigned to indirect and direct contact conditions. Results indicate a significant correlation between self-efficacy and peer support. In addition, comparisons of participants' pre- and post-test scores indicate significant changes in their self-efficacy and peer support behaviors. Knowledge of these factors can inform models and approaches to motivate, recruit, and train college students to support the educational inclusion and success of peers with ID. Results are discussed in the context of implications for practice and research, as well as methodological limitations.

*Keywords: intergroup contact, self-efficacy, inclusive postsecondary education, media, indirect contact*

## Individuals with Intellectual Disability in College Settings

An estimated 4.6 million individuals in the United States live with intellectual disability (ID). This condition originates before age 22 and is characterized by limitations in cognitive functioning and daily living skills ("Definition of Intellectual Disability," n.d.). Down syndrome is one of the most common chromosomal disorders linked to ID; it has an incidence rate of 1 per 700 live births, and approximately 400,000 individuals in the United States live with Down syndrome (Esbensen & MacLean, 2017; Roizen & Myers, 2020). Historically, few educational opportunities were available to individuals with ID after they left the K-12 school system (Davis & Beamish, 2009; Hart et al., 2010), but as a result of the Higher Education Opportunity Act (2008), over 300 inclusive postsecondary education (IPSE) programs have been established nationwide to make college education a possibility for individuals with ID (Files, 2019; Grigal et al., 2012; Higgins, n.d.). Although a great amount of diversity exists among IPSE programs, they are essentially university programs that admit and support students with ID. Students with ID have the opportunity to participate in inclusive curricular

(e.g., classes) and co-curricular (e.g., student organizations) activities and experience college life alongside their peers without ID. Students who graduate from IPSE programs are more likely to be employed, earn higher wages, and have better social outcomes than individuals with ID who do not earn a college degree (Folk et al., 2012; Grigal & Hart, 2010; Kelley & Buchanan, 2017; Plotner & May, 2019; Rillotta et al., 2020).

## Peer Support for College Students with ID

Colleges and universities have developed a variety of peer mentor models to support students with ID in various aspects of college life, including academics, social life, and residential life. The literature explores mentors at one university who met with their peers with ID for at least two hours a week for one semester, whereas peer mentors in a school-to-work transition program at a midwestern university met informally for at least 30 minutes weekly and at a monthly social event (Griffin et al., 2016; Athamanah et al., 2020). Mentors were undergraduate and graduate students in some institutions and paid employees or interns at others. Students serving as peer mentors volunteered or received course credit, and their responsibilities often included supporting students with ID with aca-

<sup>1</sup> Texas Christian University

demics, social and residential life, as well as campus involvement (Krech-Bowles & Becht, 2022).

In an autoethnographic account, a woman with Down syndrome describes the warm and close connection she shared with her mentors and the many social activities she had engaged in with them. She also shares the various practical challenges and the loneliness she experienced when she did not qualify for a mentor later in her college career (High & Robinson, 2021). Indeed, peer support has proven vital for students with disabilities to gain friendships and develop social networks, which could be critical for college success and retention (Asmus et al., 2016; Carter et al., 2016). Beyond social connections, students enrolled in IPSE programs valued the academic (e.g., studying together), informational (e.g., navigating campus activities, problem-solving), and emotional support (e.g., anxiety over fitting in) they received from their peer tutors and mentors (Wilt & Morningstar, 2020). Relative to other forms of social support, such as from family and parents, peer support was found to be more critical when students with disabilities had low confidence in courses (Lombardi et al., 2016).

These findings from current literature highlight the importance of peer support and the variety of areas in which it can benefit students with ID. In our study, we conceptualized peer support as participants' willingness to support peers with ID in the following ways: (a) maintain social proximity (e.g., take classes, share dorm room), (b) help with academic and social activities (e.g., homework, introduce to friends), and (c) engage in social activities (e.g., date, spend an evening).

### **Characteristics and Motivations of Peer Mentors**

Since informal and formal peer support can facilitate the adjustment of students with ID in college settings, it seems important to explore factors underlying college students' willingness to offer support to their peers with ID. As far as demographic characteristics, peer mentors tend to be women and students majoring in helping professions such as psychology, social work, and education (Athamanah et al., 2020; Carter & McCabe, 2020; Griffin et al., 2016). A few studies that have explored college students' attitudes toward inclusion of peers with ID have found attitudes to be generally positive (Griffin et al., 2012; Westling et al., 2013). A descriptive study indicated that 96% of the participants felt comfortable taking a class with an individual with ID, and 40% of those who lived with individuals with ID in a residence hall had developed a friendship with them (Hafner et al., 2011). In a study with college students who had vol-

unteered to serve as a peer mentor for a fellow student with ID, 75% of the 250 participants reported that they got involved in this opportunity because it aligned with their values, they wanted to give back, and they wanted to learn more about disabilities. Less than 20% of participants got involved merely for course credit or to meet program requirements. Over 90% of the participants anticipated social (e.g., developing friendships), educational (e.g., greater understanding of diversity), and personal (e.g., learning more about themselves) benefits from mentoring a peer with ID (Carter et al., 2018). Similarly, Griffin and colleagues' (2016) study with 17 volunteer peer mentors indicated that personal values such as humanitarianism and a desire to enhance one's understanding had motivated the participants to serve as peer mentors. In a systematic review of 37 studies on peer perspectives, one of the key factors underlying participants' decision to become involved in peer mentoring came from prior experiences and personal relationships with individuals with ID (Carter & McCabe, 2020).

### **Current Study**

Collectively, these findings on characteristics and motivations of college students to support their peers with ID are encouraging and offer important insights. However, the findings are mostly descriptive and provide retrospective accounts of college students already serving as peer mentors. To expand the literature on peer support behavior, we examined factors that can predict and promote peer support behaviors among college students. Knowledge of these factors can inform models and approaches to motivate, recruit, and train college students to support the educational inclusion and success of peers with ID. They can also be utilized to reach underrepresented groups such as male students and students from disciplines such as business and engineering. To this end, we explored the role of self-efficacy and intergroup contact in college students' willingness to support peers with ID.

### **Self-efficacy**

Self-efficacy is a central concept in Bandura's (1986) social cognitive theory. It is a personal belief in one's ability to perform a behavior or carry out a certain action (Bandura, 1986). Self-efficacy seems to play a role in how professionals respond to individuals with disabilities. In one study, self-efficacy among professionals was linked to less hostile and more friendly behavior toward their clients with ID (Willems et al., 2016). In another study, educators with high levels of self-efficacy were more tolerant of defiant behavior patterns in their students with ID

(Hastings & Brown, 2002). In parallel, college students with higher levels of self-efficacy were more motivated to engage in community service and more likely to derive educational benefits from these learning opportunities (Fenn et al., 2022; Richards & Levesque-Bristol, 2016; Zimmerman, 2000).

Although we could not find studies in which self-efficacy was examined in the context of peer support toward college students with ID, the summarized findings certainly highlight the role of self-efficacy in promoting positive behavior and motivation to engage with marginalized groups, specifically individuals with ID. Based on these findings, we hypothesized that participant self-efficacy would be linked to their willingness to support their peers with ID. Indeed, it is likely that students who believe in their ability to provide support and effectively interact with college students with ID may feel more favorably about supporting their peers with ID and be more likely to support them than students who lack self-efficacy.

### **Intergroup Contact**

The key premise of intergroup contact theory is that egalitarian and cooperative contact between members of the majority and the minority group is an effective way to promote positive intergroup relations (Allport, 1954; Pettigrew & Tropp, 2006). This hypothesis has been empirically verified through research on racial and ethnic stereotypes in which positive contact challenged stereotypes and, in turn, promoted favorable attitudes, self-efficacy beliefs, and an increased likelihood of cross-group interactions (Mazziotta et al., 2011; Pagotto & Voci, 2013). A parallel line of research within the intergroup contact framework has yielded evidence to support the effectiveness of both indirect contact through positive media portrayal of minority group members and direct contact with members of the minority group in promoting positive intergroup behavior (Dovidio et al., 2011; Pagotto & Voci, 2013).

Research on interaction between individuals with and without ID has yielded findings that support the intergroup contact framework. Huskin and colleagues (2017) sought participant views on intergroup contact and social distance for 10 disability types, including ID. They found that frequent and regular contact with a family member, coworker, or friend with ID was linked to participants' desire and willingness to engage in social interactions with individuals living with ID. Other studies indicate that not just prior contact but the quality and closeness of contact with individuals with ID is salient in predicting participants' implicit and explicit attitudes, intergroup anxiety, and willingness to engage in social interactions with

individuals with ID (Blundell et al., 2016; Keith et al., 2015). In addition to direct contact, studies using digital, media-based interventions as brief as 2-10 minutes have found that providing participants with indirect contact opportunities through videos can also be effective in promoting favorable attitudes, reducing intergroup anxiety, and increasing willingness to maintain greater contact with individuals with ID (Lindau et al., 2017; Walker & Scior, 2013). Notably, even imagined contact, where participants were primed to visualize a positive interaction with a person with ID was effective in improving attitudes toward individuals with ID (Falvo et al., 2014; Lindau et al., 2017).

### **Study Aims**

Based on these findings, our study aimed to address the following two research questions: (a) Is self-efficacy linked to participants' willingness to support peers with Down syndrome? and (b) Do indirect and direct contact with a person with Down syndrome increase college students' willingness to support peers with Down syndrome in a college setting? Since attitudes and behaviors toward various etiological conditions associated with ID can vary (John & Schrandt, 2019), and since Down syndrome is one of the most common conditions associated with ID (Esbensen & MacLean, 2017; Roizen & Myers, 2020), we decided to include only individuals with Down syndrome for both conditions.

## **Method**

### **Participants**

The study participants were students at a private university in the Southern United States ( $N=63$ ). Thirty participants were assigned to the direct contact condition, and 33 participated in the indirect contact condition. Out of the participants who reported their age, 31.7% were 18-20 years old, 22.2% were 21-23 old, and 11.1% were over the age of 24 years. The majority of the participants identified as women ( $n = 52$ , 82.5%), and the remaining identified as men ( $n = 10$ , 15.9%) or non-binary/non-conforming ( $n = 1$ , 1.6%). Despite the research setting being a primarily White institution, our sample included 16% of students who identified as Asian American and 32% who identified as Hispanic. Only nine participants reported using the university office that supports students with disabilities. Additional participant information is illustrated in Table 1.

**Table 1***Participant Characteristics*

Descriptor	Indirect Contact <i>n</i> = 33		Direct Contact <i>n</i> = 30	
	<i>n</i>	%	<i>n</i>	%
<b>Age</b>				
18-20 years	11	33.3	9	30
21-23 years	8	24.2	6	20
24+ years	1	3	6	20
No response	13	39.4	9	30
<b>Gender Identity</b>				
Male	5	15.2	5	16.7
Female	28	84.8	24	80
Non-binary/ non-conforming			1	3.3
<b>Race<sup>a</sup></b>				
Asian	8	24.2	2	6.7
Black	3	9.1	4	13.3
Hispanic	11	33.3	9	30
White	16	48.5	21	70
Other	1	3	0	0
<b>Major</b>				
Business	2	6	4	13.3
Health Sciences	13	39.4	15	50
Social Sciences	5	15.2	6	20
STEM	8	24.2	2	6.7
Languages	2	6.1	1	3.3
Fine Arts	2	6.1	1	3.3
Communications	1	3	1	3.3
<b>Class Year</b>				
First year	6	18.2	2	6.7
Sophomore	6	18.2	7	23.3
Junior	10	30.3	7	23.3
Senior	8	24.2	7	23.3
Graduate	3	9.1	7	23.3
<b>Receives disability support services</b>				
Yes	4	12.1	5	16.7
No	29	87.9	25	83.3
<b>Ability to Identify Down syndrome</b>				
Wasn't able to identify	4	12.1	6	2
Identified somewhat accurately	6	18.2	2	6.7
Identified accurately	23	69.7	22	73.3

Descriptor	Indirect Contact <i>n</i> = 33		Direct Contact <i>n</i> = 30	
	<i>n</i>	%	<i>n</i>	%
Contact Scale				
Family member with similar characteristics	7	21.2	3	10
Was in school with someone with similar characteristics	22	66.7	21	70
Friend with similar characteristics	11	33.3	7	23.3
Interacted with someone at work with similar characteristics	20	31.7	8	26.7
Has a co-worker with similar characteristics	1	3	3	10

*Note.* *N* = 63. Participants were on average 21.5 years old (*SD* = 2.9). The average age of participants later assigned to indirect contact condition was 20.8 years, and of those assigned to direct contact condition was 22.1 years. <sup>a</sup> The total exceeds 100% because some participants selected more than one race category.

### Procedure

The Institutional Review Board (IRB) at our university approved the protocol. Per this protocol, a recruitment flyer was emailed to departmental administrative assistants, program directors, and department chairs. These individuals were asked to share the flyer with students in their respective departments. The flyer was also posted on the university announcement webpage. Prospective participants could scan the QR code or click on the link on the flyer to go to a Qualtrics survey to provide their name and email, receive study information, and schedule a session.

Individual sessions were scheduled with interested participants. At the scheduled time, participants arrived at the data collection location, and after going through the consent process, they were either assigned to the direct or indirect contact condition. In the pretest phase (T1), participants completed a Qualtrics-based survey to assess their ability to identify Down syndrome, past and present contact with individuals with Down syndrome, self-efficacy, and peer support behaviors toward students with Down syndrome. After T1, participants assigned to the indirect contact condition were taken to a conference room, where they viewed the first episode of *Born This Way*, a docu-series on Down syndrome, which portrays young adults with Down syndrome successfully pursuing the goal of meaningful community inclusion. While the depiction of Down syndrome and persons living with Down syndrome in *Born This Way* has been a subject of some ongoing debate, most agree that the show challenges stereotypes and provides a holistic portrayal of living with Down syndrome (Appelbaum, 2019; Olson, 2018). An episode from this TV show

was chosen because it includes young, college-aged adults with Down syndrome, which made it particularly relevant and fitting for our study.

In the direct contact condition, participants completed a semi-structured interaction activity for 30 minutes with a college-aged person with Down syndrome. Three women with Down syndrome, who identify as self-advocates and are active in a local Down syndrome organization, served as interaction partners. All three were in the 20- to 35-year age group and were either attending or had attended college. Although a formal consent process was not required, our research team took several steps to ensure these women's voluntary participation. Before their first session, members of our research team, who are also college students, provided detailed information about the activity, showed the interaction partners around the data collection space, and answered any questions. The students also conversed with the interaction partners informally to learn about their likes and dislikes and engaged in an activity they chose. Before every session, a research team member offered refreshments to make the interaction partners comfortable and engaged in an informal informed consent process to ensure they were up for the session. After a few sessions, the research team members and the self-advocates with Down syndrome developed a good rapport. One of the self-advocates with Down syndrome shared that she enjoys women's basketball. So, the research team members invited their friends and hosted the three women with Down syndrome and their friends for a women's basketball game on campus. Through these rapport and relationship-building efforts, we were able to make the

women feel included in the project and ensure their voluntary and authentic participation.

The direct contact activity between the participant and the person with Down syndrome occurred in an apartment-like setting; a few board games, books, and beverages were put in the area. To facilitate conversation, participants were provided a list of questions to ask the peer with Down syndrome and were also instructed to ask follow-up questions based on the responses. The person with Down syndrome was briefed on the procedure but was asked to provide spontaneous and unscripted responses to the participants. After going through the questions, the participants could choose to either talk with the person with Down syndrome, play a board game, or read a book together.

After completing indirect or direct contact activity, participants in both groups completed the surveys, similar to those in the T1 phase. They were also asked to sign up for a future ID related event on campus. Participants who completed the entire session, including pre- and post-test and participation in the 30-minute direct or indirect contact condition, received a \$25 Amazon gift card. Adults with Down syndrome who facilitated the direct contact condition received \$50 per session. The gift card was given to them, not their parent or guardian.

## Measures

The pre-survey included demographic questions for both conditions, followed by a picture of a young woman with Down syndrome and the following vignette.

Ashley is a 22-year-old sophomore and lives with her parents close to campus. Ashley's features are distinct; she has almond-shaped eyes that slant upward on the outside corners, the bridge of her nose is small, and she has a fairly thick neck. Ashley can keep up with schoolwork but needs extra help and time to complete class assignments and homework. Ashley's speech can sometimes be a little slow and unclear. On weekends, Ashley works at a restaurant on campus, bussing tables. She is friendly, loves going to work, and always greets people at the door with a big smile and sometimes a hug. She is fairly good at her job but sometimes has trouble remembering orders and occasionally spills food and beverages.

The vignette was followed by the question, "What would you say is going on with Ashley?" The remaining surveys followed this section. Participants completed the presurvey questions with reference to Ashley.

## Contact

The contact scale included five questions to assess participants' past and present contact with individuals with ID in various settings. Two sample items from the scale are "I am or have been in school with someone with similar characteristics" and "I have interacted with someone at work with similar characteristics." Participants responded to these questions with "Yes" or "No."

## Self-efficacy

We used Culp and colleagues' (2017) self-efficacy scale but replaced "person with a disability" with "Ashley." For example, "I can comfortably interact with a person with a disability" was rephrased as "I can comfortably interact with someone like Ashley." Participants responded to the items on a 4-point scale ranging from "Not confident at all" to "Very confident." Participant scale scores could range from 6-24, and higher scores indicated higher levels of self-efficacy. In an earlier study, the items had a test-retest reliability of  $r = 0.764$  and Cronbach's alpha of .895 (Culp et al., 2017). Culp et al. (2017) also detail the process utilized to establish face and content validity. In our study, the internal consistency of 6 items was adequate, as indicated by a Cronbach's alpha of 0.80.

## Peer Support Scale

The peer support scale was an adaptation of Scior and Furnham's (2011) social distance scale. The original scale included four items and had good internal consistency ( $\alpha = .87$ ). The test-retest reliability of the items was kappa  $> .07$ . The scale was compared to the Community Living Attitudes Scale (CLAS-ID; Henry et al., 1996) to establish concurrent validity and was significantly correlated to all four CLAS-ID scales.

We added seven items to the four items in the original scale. The new items were relevant to the college setting. For example, "I would be happy to help Ashley with her homework or class assignments." Participants responded to the 11 questions on a 5-point scale ranging from "Strongly disagree" to "Strongly agree." Participants' scores could range from 11-55, with higher scores indicating greater willingness to support peers with ID. Cronbach's alpha of .87 indicated adequate internal consistency for the 11 items.

The post-survey did not include the demographic questions and contact scale. It also did not include Ashley's picture and vignette. Instead, participants in the indirect contact condition completed self-efficacy and peer support scales with regards to a character of their choice from *Born This Way*, and participants in the direct contact condition responded to the surveys with regard to the person with Down syndrome, with

whom they interacted during the activity. Additionally, all participants were asked if they would be willing to volunteer at a future ID related campus event. Please contact the corresponding author for pre and post-surveys.

## Results

Data from Qualtrics were exported to SPSS, and frequencies were examined for the self-efficacy and peer support survey items. Participants' post-survey responses indicated agreement or strong agreement with the 11 peer support statements, with two notable exceptions. Whereas over 90% of participants in both conditions responded that they would be happy to make friends with someone like Ashley, spend an evening with them, help them with their homework, and help them study for a test, only 60% of participants in the direct contact condition, but 85% in the indirect contact condition agreed or strongly agreed to share their dorm room with them. Similarly, 73% of participants in the direct contact and 63% in the indirect contact condition were either unsure or expressed disagreement with the statement that asked about their willingness to date someone like the person they had interacted with or seen in the *Born This Way* documentary. Frequency distribution for the contact scale indicated that fifty-four (86%) participants reported some form of prior contact with a person with Down syndrome, the majority of whom said they had gone to school ( $n = 43$ , 68.3%) or interacted with someone with Down syndrome at work ( $n = 38$ , 60.3%).

Frequency analyses of participants' ability to recognize signs of Down syndrome showed that 45 (71.4%) participants correctly identified Ashley as having Down syndrome, 8 (12.7%) participants stated she has a disability, but did not specify Down syndrome, and 10 (17.5%) participants provided responses that reflected lack of knowledge such as "she might be overwhelmed" or "she seems friendly and likes her job." Frequency distribution for participant responses to the question asking about their willingness to volunteer at a future ID related event indicated that out of the 33 participants in the indirect contact condition, 19 participants (56%) said "Yes," 9 (27.3%) were "Unsure," and 5 (15.2%) said "No." Whereas in the direct contact condition ( $n = 30$ ), 15 (50%) participants said "Yes" to volunteering for a future event, 13 (43.3%) said "Unsure," and 2 (6.7%) said "No."

Next, pre-survey and post-survey scale scores were computed for participants' self-efficacy and peer support. On the pre-survey peer support scale, with a possible range of 11-55, participant scores ranged

from 35-55, and their average score was 47.97 ( $SD = 5.33$ ). On the pre-survey self-efficacy scale, out of a possible range of 6-24, the sample score ranged from 10-24, and their average score was 18.19 ( $SD = 4.49$ ). A  $t$ -test to examine between-group differences for participants assigned to indirect and direct contact conditions yielded non-significant findings. Pre-survey peer support scores of 30 participants assigned to direct contact condition ( $M = 47.77$ ,  $SD = 5.71$ ) did not differ significantly from the 33 participants assigned to the indirect contact condition ( $M = 48.15$ ,  $SD = 5.04$ ),  $t(61) = -.284$ ,  $p = .78$ . Likewise, the difference between pre-survey self-efficacy scores of participants in direct contact ( $M = 17.23$ ,  $SD = 4.26$ ) and indirect contact condition ( $M = 19.06$ ,  $SD = 4.58$ ) was also non-significant at  $t(61) = 1.64$ ,  $p = .107$ .

We conducted correlational analyses on both the pre-survey and post-survey data to examine the link between self-efficacy and peer support behaviors. The two variables were moderately positively correlated at the pre-survey,  $r(61) = .525$ ,  $p = .000$ , as well as at the post-survey stage for both direct ( $r = .469$ ,  $p = .009$ ) and indirect contact conditions ( $r = .722$ ,  $p = .000$ ).

Finally, paired samples  $t$ -test analyses were conducted to compare participants' pre-survey and post-survey scores on self-efficacy and peer support (see Table 2 for results). Comparison of pre-test ( $M = 47.77$ ,  $SD = 5.71$ ) and post-test ( $M = 49.23$ ,  $SD = 4.85$ ) peer support scores showed a significant difference for direct contact condition,  $t(29) = -2.53$ ,  $p = .015$ . The effect size, as measured by Cohen's  $d$ , was  $d = 0.28$ , indicating a small effect. Similarly, comparison of pre-test ( $M = 48.15$ ,  $SD = 5.04$ ) and post-test ( $M = 50.3$ ,  $SD = 5.14$ ) scores for indirect condition was also significant,  $t(32) = -3.60$ ,  $p = .001$ , and the effect size ( $d = 0.42$ ) was moderate.

Change in participants' self-efficacy score from pre-test ( $M = 17.23$ ,  $SD = 4.26$ ) to post-test ( $M = 21.23$ ,  $SD = 2.87$ ) was significant in the direct contact condition,  $t(32)$ ,  $p = .000$ , and Cohen's  $d$  ( $d = 1.10$ ) indicated a large effect. In the indirect contact condition, participants' self-efficacy score once again showed a significant change,  $t(32) = -4.58$ ,  $p = .000$  from pretest ( $M = 19.06$ ,  $SD = 4.58$ ) to posttest ( $M = 21.42$ ,  $SD = 2.95$ ), and effect size as indicated by Cohen's  $d$  ( $d = 0.61$ ) was medium.

## Discussion

IPSE programs offer persons with ID an opportunity to attend college, and among the many factors that can facilitate their adjustment in the college setting, peer-mediated support appears to be particular-

**Table 2***Results of Pretest-Posttest Comparison for Direct and Indirect Contact Conditions*

Outcome	Direct Contact Condition							Indirect Contact Condition						
	Pretest		Post-Test		<i>t</i> (29)	<i>p</i>	Cohen's <i>d</i>	Pretest		Post-Test		<i>t</i> (32)	<i>p</i>	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Peer Support	47.77	5.71	49.23	4.85	-2.53	.017	0.28	48.15	5.04	50.3	5.14	-3.60	.001	0.42
Self-Efficacy	17.23	4.26	21.23	2.87	-7.23	.000	1.10	19.06	4.58	21.42	2.95	-4.58	.000	0.61

ly effective and vital (Asmus et al., 2016; Carter et al., 2016; Wilt & Morningstar, 2020). In this study, we examined the role of self-efficacy and intergroup contact in predicting and promoting college students' willingness to support their peers with Down syndrome and derived several important findings. First, self-efficacy was linked to college students' willingness to support peers with Down syndrome. Although these findings are correlational, future studies can verify this link, and, if confirmed, various curricular initiatives can be implemented to improve students' self-efficacy to support peers with ID.

Participants' peer support behavior scores improved significantly after partaking in the 30-minute indirect and direct contact conditions, but the effect sizes were small to moderate. This finding implies that interacting with a person with Down syndrome or watching a video portraying an adult with Down syndrome was only somewhat effective in increasing the willingness of college students to support peers with ID. Participants' self-efficacy showed significant improvements in indirect and direct contact conditions, and the effect size was especially large for the direct contact condition. The large effect size implies that providing students an opportunity to engage in a meaningful interaction with a person with Down syndrome could be an effective way to develop their self-efficacy and, in turn, their willingness to provide peer support. Perhaps to a lesser degree, but exposure to media with positive portrayals of individuals with Down syndrome is also an effective approach to promoting self-efficacy among college students. It is important to note that our study did not include a control group, so although we saw improvements in our participants' variable scores, our findings should be viewed with caution.

The findings described above confirm and align with past research on intergroup contact (Dovidio et al., 2011; Mazziotta et al., 2011; Pagotto & Voci, 2013; Pettigrew & Tropp, 2006). The findings also open up possibilities for practical applications. To recruit peer mentors, colleges can create meaningful intergroup contact opportunities that can help students across campus learn about Down syndrome and bolster their motivation to engage in peer support activities. Our direct contact condition provided an opportunity for women with Down syndrome to engage with college students and enhance the latter's awareness of persons with Down syndrome. Members of our research team, who are also college students, invited these women and their friends to a campus basketball game, which created an intergroup contact opportunity in which college-aged students with and without ID interacted in an informal and fun setting. Indeed, sporting events can be an effective platform for bringing together college students with and without ID. Additionally, self-advocates like the women who facilitated our study can be invited to give class presentations. Finally, colleges could promote inclusive programs like Next Chapter Book Club, Best Buddies, and Let's Take a Walk. These programs implemented in college settings bring together individuals with and without ID to promote inclusion and understanding through friendships and social connections (Hardman et al., 2006; John, 2023; Tucker et al., 2020).

The indirect contact condition provided a cost-effective and efficient means to promote positive behaviors. Perhaps videos such as the one we utilized in our study can be an effective means to recruit and train peer mentors. Also, increased media portrayals present opportunities to promote peer support on college campuses and widespread community awareness. According to some estimates, only 4%

of characters on TV shows have a disability (Nielsen, 2022). By improving representation, especially of ID-related conditions like Down syndrome, media can present the broader community with a powerful indirect contact opportunity to improve cross-group attitudes and behaviors. Future studies can also consider using positive imagined contact to examine its effect on participants' peer support and self-efficacy. Significant findings could pave the way for incorporating this approach into class activities and curricula to promote positive intergroup interactions between persons with and without ID. For example, health-related and helping professions can include case studies and simulations focused on positive interactions between individuals with and without ID. Disciplines such as architecture, education, and environmental sciences can engage in case competitions on creating inclusive spaces that utilize universal design concepts to promote effective interaction between individuals with and without ID.

Some of our other findings are also worth noting. Over half of our participants expressed willingness to volunteer at a future ID related event. Since we asked this question only in the post-survey, we cannot attribute this positive response to intergroup contact, but the general openness among our participants to engage with peers with Down syndrome is certainly encouraging. In contrast, the relatively low willingness among direct contact condition participants to share their dorm room with the women with Down syndrome they had interacted with was concerning, especially in light of the overwhelming agreement with other peer support statements such as willingness to socialize with them, make friends with them, and help with homework or study for a test. However, this finding is consistent with previous ones that reflect discomfort with proximity and desire to maintain social distance in certain contexts, especially from persons with ID (Firat & Koyuncu, 2022; Pace et al., 2010).

Methodologically, our pre-post design and random group assignment represented a unique approach to test the role of intergroup contact. Based on our literature review, this is probably one of the few or perhaps the only study to systematically examine factors linked to college students' peer behaviors toward students with ID. With over 300 IPSE programs, we believe our findings are timely and can be utilized to inform recruitment and training efforts for peer mentors. In addition to the findings, the study presented our participants, especially those in the direct contact condition, with a positive and meaningful opportunity to learn from a person with Down syndrome. Likewise, individuals, especially adults with ID, are at high risk of loneliness and isolation (Gilmore & Cuskelly,

2014). Our sessions brought college students and three adults with Down syndrome together and provided the latter with an opportunity for social interaction.

### **Limitations and Future Directions**

Along with methodological strengths, our findings should be viewed in the context of various limitations. Although we randomly assigned participants to two conditions, our study did not include a control group, and our sample size was quite small. Due to these limitations, our findings cannot be considered causal. Addressing these limitations in future research can support us in inferring causality. Additionally, despite our best efforts to recruit participants from diverse disciplines and demographic groups, our sample consisted mostly of women and students from health professions. As women and individuals from helping professions are already overrepresented among peer mentors in IPSE programs (Athamanah et al., 2020; Carter & McCabe, 2020; Griffin et al., 2016), our study did not expand findings that shed light on what might attract individuals from underrepresented groups to peer mentoring opportunities.

Similarly, although our participants in both conditions showed improvements following the intergroup contact, their peer behavior scores were already fairly high at the pre-survey phase. Arguably, students who already felt favorably toward Down syndrome and individuals with Down syndrome had volunteered to participate in our study. Future studies can look at other methods to recruit participants who are underrepresented in peer mentoring research and programs. Interdisciplinary partnerships between faculty from helping professions and those from male-dominated disciplines such as engineering could lead to a more gender-diverse sample and, ultimately, more diverse peer mentors.

Next, our direct and indirect conditions exposed participants only to individuals with Down syndrome. Although this was a design choice to control for etiological conditions, our findings may not generalize to other etiological conditions such as autism and fetal alcohol spectrum disorder. Past research has discussed "Down syndrome advantage" in the context of parental stress and family well-being, suggesting that relative to other disabilities, families of children with Down syndrome enjoy greater well-being and lower levels of stress (Corrice & Glidden, 2009; Mitchell et al., 2015). This advantage may extend to peer support in a college setting as well. Similarly, Connolly and colleagues' (2013) study suggested that when participants were aware of the diagnostic level, they were likely to hold less stigmatizing views and reduce social distance relative to participants unaware of the ID di-

agnosis. Since Down syndrome is easily identifiable, and close to 85% of our participants identified it accurately or somewhat accurately in the vignette provided to them, they may have reported more supportive behaviors. Future research should include individuals with other conditions, such as Fragile X syndrome or fetal alcohol syndrome disorder, which are relatively less visible and harder to recognize. Relatedly, although our design included a pre-post survey and random assignment, it did not include a control group.

Finally, we did not assess participants' implicit attitudes or the quality of prior contact. Wilson and Scior (2015) found a significant difference between their participants' implicit and explicit attitudes toward individuals with ID. While age and educational attainment predicted participants' explicit attitudes, they did not account for their implicit attitudes. Our focus on explicit attitudes combined with the use of self-report measures could have resulted in socially desirable responses, which may not fully reflect participants' inner thoughts and beliefs. Or, possibly, they may not be aware of their unconscious biases. Similarly, past studies have noted the role of quality and closeness of contact in participants' willingness to maintain social proximity with individuals with ID (Blundell et al, 2016; Keith et al, 2015). While we asked questions about past contact, the quality and closeness of contact could be essential variables to consider in the context of students' willingness to provide peer support.

### Conclusion

Our preliminary findings on self-efficacy and intergroup contact as predictors of college students' peer support behaviors are promising. They have practical implications for college campuses with IPSE programs to consider. Simultaneously, they lay a foundation for future research to build on with a stronger methodology and a more comprehensive set of constructs.

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### About the Authors

Aesha John received her B.A. degree in psychology from St. Xavier's College and her Ph.D. from Oklahoma State University. Her experience includes working as a program manager for REACH, India. She is currently a professor in the Department of Social Work at Texas Christian University. Her research interests focus on the well-being of individuals with intellectual disabilities throughout their lifespan, as well as parenting in challenging contexts. She can be reached by email at: [aesha.john@tcu.edu](mailto:aesha.john@tcu.edu).

Sydney Sanders earned her Bachelor's degrees in Social Work and Criminal Justice and her Master of Social Work from Texas Christian University. She has professional experience providing behavioral services with the Arlington and Grand Prairie Police Departments and currently serves as a School Social Worker with Grand Prairie ISD in Texas. Her professional interests center on crisis management and intervention.



# Disabled Graduate Students: Disability Services Use and Perceived Needs

Emily Tarconish<sup>1</sup>  
Allison Lombardi<sup>2</sup>  
Tarah Jordan Hicks<sup>3</sup>

## Abstract

Qualitative studies have revealed that disabled graduate students (DGS) are unlikely to self-disclose their disabilities and even less likely to register with disability services offices (DSO). The current study analyzed a survey of DGS at a large institution to determine if participants registered for services and if not, what barriers prevented them from doing so, to whom they disclosed their disabilities, and their perceptions of what services they required. Results indicate that over half of participants did not register with their institution's DSO for various reasons, including lacking awareness of available services for DGS, and seeking to avoid stigma and discrimination. Participants also described needing a range of services that are specific to their needs as DGS. Implications for researchers and practitioners and limitations are discussed.

*Keywords: disabled graduate students, disability services offices, disability-related stigma, postsecondary education, graduate education*

Rates of undergraduate students who identify with disabilities continue to increase, currently encompassing 21% of the undergraduate student body (National Center for Education Statistics [NCES], 2023). In response, postsecondary education disability services offices (DSOs) are also expanding, in terms of both staff size and types of services and resources they offer (Scott & Marchetti, 2021). As a majority of students served by these offices are undergraduates, the research documenting the services offered and used primarily reflects the experiences of undergraduate students. However, the percentage of graduate students who report experiencing disability (11%) is also substantial (NCES, 2023). More information is needed about the experiences of disabled graduate students (DGS), the barriers they face, and the services they use and need.

Language continues to evolve regarding disability, with various individuals and disabled communities espousing different preferences. Currently, it has not been documented which language is preferred amongst DGS as a unified group, but a variety of preferences likely exist as this population encompasses people experiencing a range of disabilities (Best et al., 2022). As such, we will use both person first lan-

guage (e.g., graduate students with disabilities) and identity first language (e.g., DGS) throughout this manuscript to reflect this lack of consensus.

Qualitative inquiries have highlighted the multiplicity of roles DGS must fulfill. These individuals often must perform as both students and employees, which means they have to disclose to and register with both academic DSO and employment accommodations offices, and decide when to disclose (e.g., before entering their programs, once they gain admission, mid-program, when their work duties begin; Carter et al, 2017; Lund & Hanebutt, 2022). Further, it is often less of a question of when students disclose, and more related to if, as research has found that most DGS choose not to do so (Lund & Hanebutt, 2022; Mamboleo, 2015), which results in a lack of accommodation requests from these students (Tamjeed et al., 2021).

DGS have reported the primary reasons they choose not to disclose is to avoid disability-related stigma and navigating faculty and institutional ignorance regarding what accommodations are appropriate (Lund & Hanebutt, 2022). In an analysis of graduate student with disabilities' posts on X (formerly Twitter), Ball and Traxler (2023) found that users conveyed the awareness of disability-related stigma

<sup>1</sup> University of Illinois Urbana-Champaign; <sup>2</sup> University of Wisconsin; <sup>3</sup> Quinnipiac University

made them hesitant to disclose disability. These DGS also indicated that they were encouraged by graduate faculty not to self-disclose their disabilities in their graduate school applications, which reinforced the notions that disability was not a concept to be discussed in graduate education.

Other DGS have expressed frustration as undergraduate and graduate students' needs are conflated, leading to inappropriate accommodations for graduate students (Tamjeed et al., 2021). Relatedly, Ball and Traxler (2023) found that graduate students recounted being told by their institution's DSO that they did not need accommodations because they were graduate students and their "grades were fine" (p. 7), which aligns with Carter et al.'s (2017) finding that graduate students with disabilities felt their accommodations were perceived as "special treatment," (p. 102).

Research has emphasized the incompatibilities of functioning as DGS in inaccessible postsecondary education environments (Carter et al., 2017). Graduate students with disabilities must both pass as able-bodied/neurotypical in settings where they are discouraged from self-disclosing or using accommodations, but also must articulate and perform disability to "prove" their need for reasonable accommodations when registering for services. Timelines for various tasks that are typical of graduate programs, such as manuscript publication, carrying out research, and completing graduate program competencies, are incompatible with disabled bodyminds that may need additional time to complete work. The rapid pace of academia and emphasis on productivity may not accommodate the need for self-care, which is necessary for many disabled individuals (Carter et al., 2017).

Availability of accommodations and supports for DGS that occur outside of courses has been described as limited, including access to mental health supports, accommodations related to research duties (Tamjeed et al., 2021), guidance for academic writing (Kallestina, 2017), and teaching (Lund & Hanebutt, 2022). While online learning has offered DGS more flexibility in how they learn, high levels of self-accommodation and self-advocacy skills were identified as necessary factors for students to succeed in these learning environments (Terras et al., 2015).

Previous research has identified that DGS face complexities navigating the multiple roles they fulfill, barriers that prevent them from disclosing to DSOs, and frustrations with the conflation of their needs with those of undergraduate students. To date, most studies have explored individual DGS narratives or extant data. There is a need for research to examine the experiences of larger numbers of DGS to identify commonly experienced barriers and solutions. The

current study analyzed the results of a survey sent to DGS at a large institution that was intended to collect information about DGS's experiences and needs for the Office of Graduate Students and Postdoctoral Support. The current study sought to answer two research questions:

1. What factors impede the use of disability services for DGS?
2. What supports and resources do DGS need?

## **Method**

The intent of the current study was to assess the barriers to service use for DGS and the types of services they use and need to be available. The research team analyzed survey results of 72 DGS using descriptive statistics (e.g., frequency counts) and thematic analysis, as described below.

### **Survey Development & Design**

The Principal Investigator (PI) of the study worked with the Director of Graduate Students and Postdoctoral Support (DGSPS) at a large institution in the Northeast to create a brief survey to examine the perspectives of DGS. The DGSPS specified that she wanted to gain insight into (a) if DGS understood the concepts of disability and accommodations, (b) whether DGS disclose to the institution's DSO and used reasonable accommodations, (c) if DGS disclosed to their advisors and why (d) if DGS did not register with the institution's DRO, what barriers prevented them from doing so, and (e) what other services/resources they need. The DGSPS also indicated that in her interactions with DGS, she observed hesitation discussing disability-related issues and learned that disability-related stigma is a concern of many of these students. As such, she wanted to provide an anonymous survey to DGS aimed to help them feel more comfortable when participating. The DGSPS also indicated that she wanted to make the survey as short as possible, as graduate students have limited time to participate in research. Although the survey was created for the purpose of collecting information about DGS for the institution's graduate school, after the data were used for this purpose, the PI received permission to analyze the data from the DGSPS, at which point the PI requested and received IRB approval from her own institution to conduct the analyses.

In response to the DGSPS's guidance, the PI created a seven-item survey that did not include demographic information (see Figure 1). The survey, which was created and distributed in Qualtrics, first described its purpose and indicated that it was anon-

**Figure 1**

*Graduate Students with Disabilities Survey of Service Use, Disclosure, and Needed Services & Resources*

1. Do you feel like you understand what a disability is?
2. Do you feel that you understand what accommodations look like in postsecondary education?
3. Beyond accommodations, are there additional services/resources that you feel graduate students with disabilities might benefit from?
4. What additional resources would be beneficial to you, as a graduate student with a disability?
  - Non-clinical support group to connect with other graduate students with disabilities
  - Online resources, such as a blog or forum to connect with other graduate students with disabilities
  - Time management workshop
  - Learning about how reasonable accommodations apply in academic/teaching/research jobs
  - Study skills workshop
  - Writing group to meet and write with other graduate students with disabilities
  - Workshops involving how to work with advisors
  - Disability awareness and accessibility events for my department
  - Self-advocacy workshops
  - Other
5. If you are a graduate student with a disability, have you self-disclosed to, registered with, and requested accommodations from the DRO?
  - Yes, I self-disclosed my disability in order to receive reasonable accommodations
  - Yes, I self-disclosed my disability but do not use reasonable accommodations
  - No, I did not register with DSO because I did not need reasonable accommodations
  - No, I did not register with DSO for another reason (please specify)
6. As a graduate student with a disability, have you self-disclosed your disability to your advisor?
  - Yes, I self-disclosed my disability to my advisor so he/she/they can understand the accommodations I receive
  - Yes, I self-disclosed my disability to my advisor, but have not shared the accommodations I receive
  - No, I did not self-disclose my disability to my advisor for another reason (please specify)
7. During the COVID-19 pandemic, many changes affected graduate education, including most instruction occurring online. As a graduate student with a disability, what additional needs did you have during this time?

ymous and not affiliated with the institution's DSO. This latter notice was added as not to confuse individuals who may have thought they needed to be registered as a student with a disability to participate. Next, information about the two laws governing disability-related accommodations in postsecondary education (The Americans with Disabilities Act and The Rehabilitation Act of 1973) were provided, as well as a description of the most common types of disabilities DGS who register with the institution's DSO experience. A definition of reasonable accommodations was also provided. This information was shared to ensure that participants understood the context and terms referenced in the following survey questions.

The first two questions asked students if they understood the concepts of "disability" and "accommodation." The next question asked what types of services, beyond typical accommodations, from which graduate students would benefit. Participants responded to the first three questions using an open-ended text box. The next question asked what additional resources would be beneficial to the respondent and listed ten options. The first nine were based on services offered to or desired by DGS described in the research literature, as well as services the DGSPS identified as being offered by other graduate schools (non-clinical support group, online resources to connect with other DGS, time management workshop, learning about how accommodations apply in academic jobs, study skills workshop, writing group to meet and write with other DGS, workshops involving how to work with advisors, disability awareness and accessibility events, and self-advocacy workshops) and the last was a text box for participants to describe additional resources. The next question asked if participants registered for accommodations at the institution's DSO and provided four options ("Yes, I self-disclosed my disability in order to receive reasonable accommodations," "Yes, I self-disclosed my disability but do not use reasonable accommodations," "No, I did not register with [DSO] because I did not need reasonable accommodations," "No, I did not register with [DSO] for another reason (please specify).") The options for these questions assumed that disability disclosure for DGS was most commonly related to the need for reasonable accommodations, which has been suggested in previous research (Pearson & Boskovich, 2019). The following question asked if respondents self-disclosed their disability to their advisor and provided four options ("Yes, I self-disclosed my disability to my advisor so he/she/they can understand the accommodations I receive"; "Yes, I self-disclosed my disability to my advisor, but have no shared the accommodations I

receive"; "No, I did not self-disclose my disability to my advisor because I did not need him/her/they to know about the reasonable accommodations I receive"; "No, I did not self-disclose my disability to my advisor for another reason (please specify).") The final question asked if participants had additional disability-related needs during the COVID-19 pandemic and provided an open-ended text box.

### **Setting, Recruitment, and Participants**

The survey was sent to all graduate students who attended a large research-intensive university in the Northeast. The DGSPS sent an email advertisement to approximately 7,000 graduate students who attended the institution. Since it is approximated that 11% of graduate students self-report disabilities, it can be assumed that at least 770 students in this population experienced disability. The advertisement described the survey's purpose, that it was completely anonymous, and indicated that any graduate student who identified with a disability was eligible to participate. It also described that the survey was created and would be analyzed by the PI, who was a current graduate student at the time who studied the experiences of disabled postsecondary students and experienced a disability herself. A link to the survey was included in the advertisement email, and the email was resent several times over the course of a semester. Seventy-two respondents completed the survey, which represents 1% of the students who received it, and 9.3% of those who were approximated to be eligible (i.e., DGS).

### **Data Analyses**

As participants listed "Yes," "No," or some form of "Maybe" for the first two questions, these results were tallied into three categories. Questions that provided options were also tallied based on participant response. All qualitative responses were coded using thematic analysis (Braun & Clarke, 2012). The PI and a graduate assistant performed all thematic analyses. First, survey responses were downloaded into an Excel spreadsheet for each question. Next, each researcher independently read through all qualitative responses, jotting down initial reactions to the data (i.e., reflexive memoing). The researchers continued to work independently, adding initial codes to the transcripts to identify features "of the data that is potentially relevant to the research question(s)," (Braun & Clarke, 2012, p. 61). Initial codes also encompassed interpretation, or "meanings that lie beneath the semantic surface of the data," (Braun & Clarke, 2012, p. 61). Next, the PI and the graduate assistant met to discuss codes, resolve any discrepancies, and identify emerging themes. Two ini-

tial themes were identified for the first research question (What services/resources do DGS use?) and five initial themes were identified for the second research question (What supports do DGS want and need?). Themes were reviewed, refined, and defined.

### **Trustworthiness and Credibility**

The researchers applied measures of trustworthiness and credibility to this analysis as outlined by Nowell et al. (2017). Each researcher who coded the data documented reflective thoughts before applying codes and discussed those thoughts with the other researcher. During the coding process, each researcher continued to carry out reflexive journaling and then met to review codes together (i.e., consensus coding) and resolve discrepancies. This process reduced the likelihood of bias as each researcher could reflect upon the analysis process of the other and provide feedback. Researcher triangulation was also implemented when the researchers searched for, reviewed, and defined themes, and each kept detailed notes about the development of concepts and themes. The PI also carried out referential adequacy, or returning to the initial codes and comparing them to the themes to ensure that all conclusions were grounded in the data. Codes and themes were documented via coding trees (see Figures 2 and 3) and serve as an audit trail to transparently display the analysis process.

### **Limitations**

Several limitations were present within this study. First, the survey was administered to graduate students at one institution and respondents represented about 1% of overall graduate students and an estimated 9.3% of DGS at this university. As such, results may not be generalizable. Further, demographic information was not collected for participants, and so the researchers were not able to determine who was represented, outside of respondents' self-reporting disability (a condition of taking the survey). While this was a stipulation required by the institution, it constitutes a significant limitation in the study. Finally, a range of graduate students across many degree programs were surveyed. Future efforts to study unique barriers and solutions pertaining to certain degree-types and disciplines are needed (e.g., STEM vs. non-STEM).

### **Researcher Positionality**

The first and third authors performed the analysis, and as such, each has included a positionality statement. At the time of survey development and data collection, the PI was a fifth year PhD candidate at the site of the study who identified with a disability. The DGSPS contacted her to assist with this project

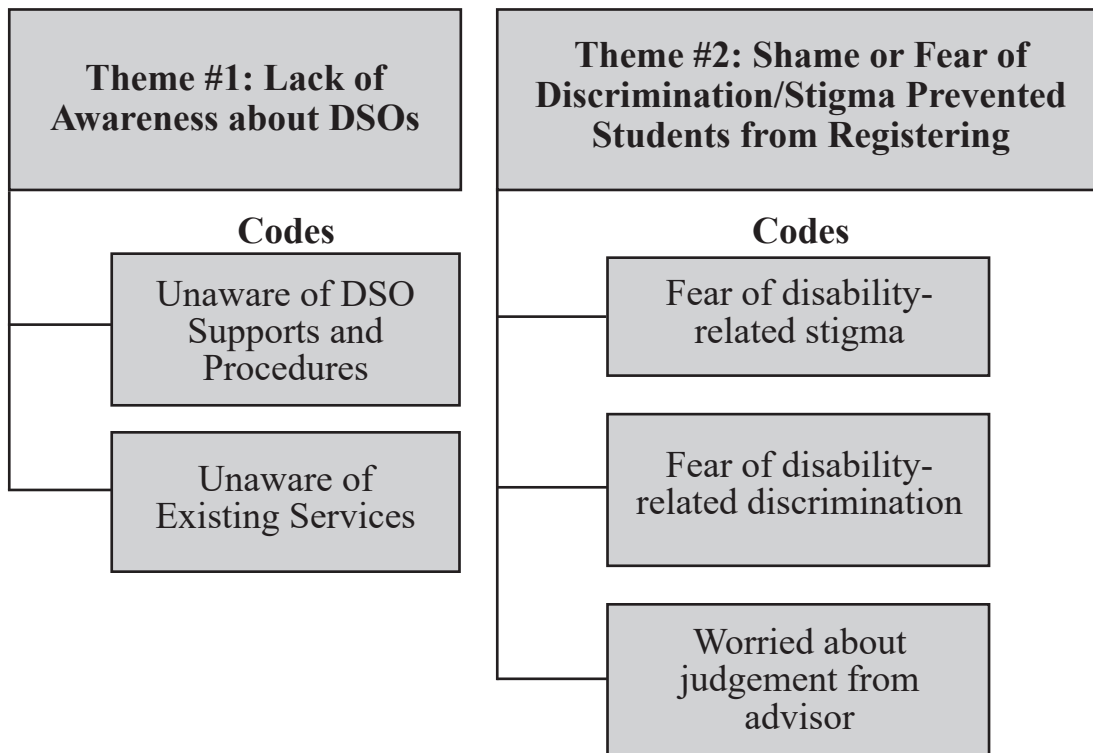
because her primary area of research involved the experiences of postsecondary students with disabilities, as well as having the perspective of being a disabled graduate student herself.

The PI experienced an acquired disability when she was 15 years old that resulted in life-long effects on her abilities, including those that affect thinking and learning. As such, she registered with the institution's DSO to receive reasonable accommodations for her PhD program. Throughout her graduate education, she met other graduate students with disabilities, many of whom indicated they did not register with DSO because they did not want to share their disabilities with others. Reflecting on her own experience, she realized that her educational background involving disability education law helped her to feel more secure in registering, knowing her legal rights, and that her information would be kept confidential. Further, she self-disclosed to her advisors and instructors within the educational psychology department, as they too were familiar with relevant disability protections and working with disabled students. The PI recognized that most other graduate students are likely less exposed to this information, which might influence their willingness and ability to access services. When the opportunity to explore this phenomenon was presented, the PI approached the inquiry with an open mind, acknowledging her own experiences and seeking to allow other DGS' words to elucidate their own experiences. To minimize potential bias, the PI employed measures to embed trustworthiness and credibility into the analysis, as previously described.

The third author was a graduate student at the time of analysis, concurrently pursuing a Master's Degree in Higher Education & Student Affairs and a Graduate Certificate in Postsecondary Disability Services. She was registered with the disability services office at her institution and received accommodations. As such, she pursued this research with the lived experience of a disabled graduate student. At that time, she identified as disabled and chronically ill. Although qualifying as "disabled" from birth, she did not identify as such until freshman year of her undergraduate degree. Her disabled identity journey began when she learned about Christine Miserandino's Spoon Theory (2002) in an introductory Women's & Gender Studies course and understood that her diagnoses could be considered both chronic illnesses and disabilities. This understanding allowed her to eventually seek out accommodations at her undergraduate institution and fueled her interest in engaging with disability advocacy personally and professionally. Since completing her graduate degrees, she has received additional diagnoses that also qualify as chronic illnesses and/

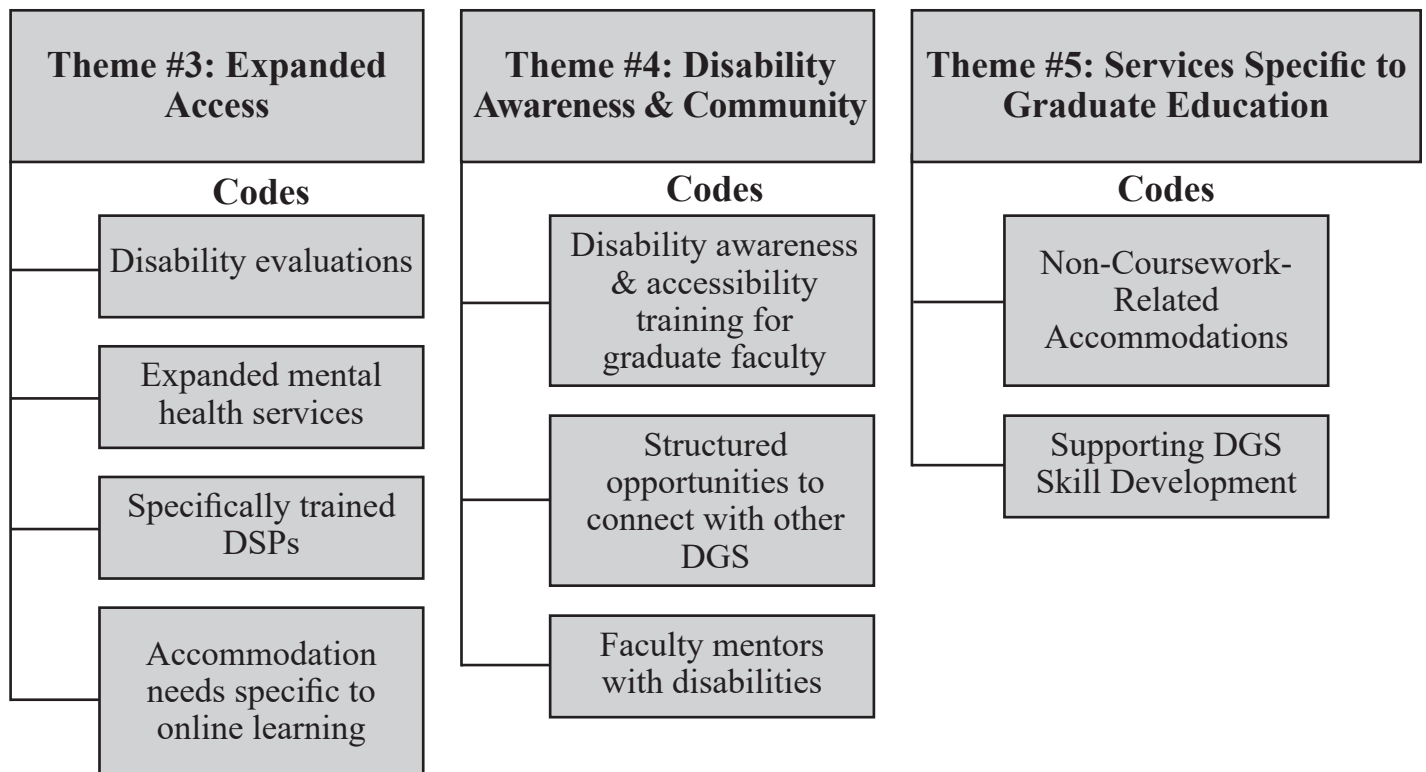
**Figure 2**

*Coding Tree for Themes #1 and #2*



**Figure 3**

*Coding Tree for Theme #3, #4, #5*



or disabilities. She currently identifies as disabled, chronically ill, and neurodivergent, and works as a coordinator of student accessibility at a higher education institution. She sees her lived experiences as integral to her work with students and other campus partners. She acknowledges how her lived experiences led her to this research, as well as how they brought potential biases to the work. She was diligent to employ credibility and trustworthiness measures to limit any biases from influencing analysis and allow disabled students to speak for themselves through the data.

## Results

The results section describes themes that emerged from the data analysis; frequency calculations for questions 4-6 that indicate the number of participants who endorsed each item were calculated and integrated throughout discussion of themes.

### Research Question One: What Factors Impede the Use of Disability Services for DGS?

Less than half of participants ( $n=35$ ) registered with the institution's DSO, and only 26 used formal accommodations. Notably, all students who received formal accommodations through their institution's DSO also self-disclosed their disability to their advisor to make them aware of their need to use accommodations, as they would not have been notified unless their advisor was also a course instructor. Three additional students coordinated informal accommodations directly with their advisor.

#### *Theme One: Lack of Awareness about DSOs*

Theme One illustrates DGS' lack of awareness about DSOs. Not only were many participants not familiar with the concept of reasonable accommodations overall, but they also did not know what available supports, including accommodations, were available to DGS. Further, many participants lacked knowledge about how to obtain services or the procedures involved in registering with their institution's DSO.

**Unaware of DSO Supports and Procedures.** Slightly more participants (37/72; 51%) did not register with their institution's DSO. The primary reason participants did not register for disability services involved being unaware of available services or feeling that services do not meet the needs of graduate students. While most students only indicated that they did not register, and did not include a rationale for not doing so, four students described being completely unaware of the institution's DSO's function, or what accommodations were available. One student stated: "I didn't know what to ask for or what

would even help," and another shared "I wish I had known about (DSO) earlier." Eleven students focused on being unaware of registration procedures and eligibility requirements. They recounted not knowing how to register for services, whom to contact to do so, if one could register in the middle of completing an academic program, and for what accommodations they would be eligible.

Almost all participants reported that they understood what constitutes a disability (68/72 participants indicating "Yes," one indicating "No," and three indicating "Maybe."), only half understood the concept of "reasonable accommodation" (37/72; 51% indicating "Yes," two indicating "Mostly," four indicating "Somewhat" or "Sort of," 26 indicating "No," "Not really," or "Not at the graduate level," three indicating "Not outside of extended time for tests," or "Not for my particular disability" and one indicating "Not sure.") Relatedly, 10 participants described a lack of clarity about the types of disabilities that DSOs can support, or the types of accommodations that were available. One stated, "I didn't know they could help with mental health disabilities." Another shared, "I thought you needed more than extended test time to get services. I didn't register because I thought you needed to need more than that." Six participants shared that they did not register because they thought disability services were intended or "geared" for undergraduate students. Students said, "The accommodations offered for tests are useless for a PhD candidate," "They can't give me the help I need," and "I didn't think (DSOs) applied to graduate students."

**Unaware of Existing Services.** One notable finding includes that graduate students expressed wanting services that are typically available at DSOs. This finding suggests that these individuals were unaware of resources that were potentially available to them. For instance, students wanted access to assistive technology for notetaking, writing assistance, dictation, text to speech/audio books, or devices, such as Orcam, an assistive technology tool that transforms visual text materials into descriptive audio feedback. While DSOs may offer varying levels of assistive technology, these tools are typically considered reasonable accommodations that provide educational access to students. Further, the DSO at the site of this study provides a technology team to registered students with disabilities that can provide a range of assistive technology, including all of the needs that were described by students in this survey.

**Table 1***Additional Resources Sought by DGS*

<b>Resources</b>	<b>Frequency</b>
Non-clinical support group to connect with other DGS	39
Online resources, such as a blog or forum to connect with other DGS	29
Time management workshop	23
Learning about how reasonable accommodations apply in academic/teaching/research jobs	54
Study skills workshop	17
Writing group to meet and write with other DGS	14
Workshops involving how to work with advisors	34
Disability awareness and accessibility events for my department	35
Self-advocacy workshops	34
Other	17

***Theme Two: Shame or Fear of Discrimination/ Stigma Prevented Students from Self-Disclosing Disability***

Students expressed that fear of shame, discrimination, and stigma influenced their decisions not to register with their institution's DSO. One described "struggl[ing] to discuss [disability] openly," experiencing "worry about being judged for using accommodations," and feeling nervous that disclosing disability to their advisors or notifying them that they used accommodations would "affect recommendations because there is lots of stigma around disability."

Thirty-five participants (48%) did not self-disclose their disability to their advisor, 16 of whom did so because they determined that their advisor did not need to know about their accommodations, and twenty-nine did so for another reason. Fourteen of these individuals related their lack of disclosure to wanting to avoid stigma and discrimination. One student shared "some but not all disabilities," with their advisor, describing that he didn't think his advisor would believe his disability was real or valid. The remaining students accounted being "unsure if they should," or not having the opportunity to do so.

**Research Question Two: What Supports and Resources do DGS Need?**

Participants described needing services and resources similar to those needed by undergraduates, such as expanded access and faculty disability-awareness training, as well as accommodations specific to online learning. Additionally, they expressed a need

for services that are specific to graduate education and not necessarily coursework based. Table 1 displays the number of students who selected one of the nine services described by the survey as resources they require.

***Theme Three: Expanded Access***

DGS described wanting to expand access to necessary services and accommodations. Participants reported a commonly experienced barrier to receiving accommodations in postsecondary education: obtaining required documentation of disability (Krebs, 2019). As such, several participants reported that evaluations should be provided by DSOs to enable them to receive updated diagnoses and subsequently access needed services. Participants also shared the desire for expanded availability of mental health services, and disability services professionals (DSPs) who are trained to work with students with specific disabilities, namely psychiatric disabilities.

Reflecting on their learning during the COVID-19 pandemic, participants described additional access needs related to online or remote learning. Eight individuals stated that their needs were met and several clarified that online learning reduced the accessibility barriers they faced. One of these individuals cited "not having to worry about disrupting (in-person) class with my disability," or having more time to work because they did not have to drive to campus. However, most respondents stated that remote learning presented challenges, specifically for students with disabilities. One shared that "the pandemic hit students with disabilities harder than other groups." DGS experienced

increased mental health struggles during the pandemic and expressed an increased need for additional mental health services to be available. One student noted, “mental health was worse because of isolation,” and another shared, “remote learning was difficult and stressful.” When learning online, participants also sought remote “communities [with which] to work,” and “more social support/online community support. Participants also described seeking “online disability support,” and guidance involving how to learn effectively online. Participants reported needing help with focusing in an online learning setting, as well as executive functioning support, specifically involving managing due dates and assignments.

Participants described needing a range of accommodations that are specific to online learning, including availability of accessible online materials and access to research materials. Regarding remote classes and meetings, needs included automatic captioning and transcripts for lectures, and recordings of lectures. One student explained that “listening to remote lecture was impossible.”

Many students stated a need for time-related accommodations, including extensions for remote work, increased availability of incomplete grades, or extended time for exams. These needs were related to work involving staring at a screen for prolonged periods, which can exacerbate various disabilities (e.g., chronic migraines, traumatic brain injuries) and is not possible for many learners. Relatedly, several students noted that three-hour classes online are much more difficult and should be broken down over several days, or at least incorporate more breaks throughout. In addition, participants also wanted time adjustments applied to their program requirements, including time off, an “extended PhD clock,” “slowing down work expectations because stress exacerbated chronic health conditions,” and “extended time to complete graduate duties,” such as grading duties.

#### ***Theme Four: Disability Awareness and Community***

While literature exists on the benefits of faculty instructors receiving disability awareness and accessibility/accommodation requirements training for undergraduate students (Murray et al., 2014; Tarconish et al., 2023), DGS expressed similar needs regarding disability awareness and accessibility training for their instructors and advisors. Two suggestions included ensuring that graduate faculty receive training regarding how to support DGS, as well as information about disability, particularly related to chronic disabilities that may “flare last minute.”

Participants also expressed wanting systematic and structured opportunities to connect with other

DGS. One discussed the unique position of DGS, who can function as students, instructors, and researchers and may face potential barriers to fulfilling all of these roles. One participant suggested the creation of a “support group so students can interact with each other and share difficult experiences.” A second participant, who also wanted support groups to be available, indicated that a peer support could help members “navigate graduate school, and the job market.” In addition to practical benefits such as these, others described how bonding with other graduate students with disabilities would fulfill social needs. One wrote, “I would like something that puts us in contact with others so we don’t feel so isolated.” Participants also described seeking a second type of peer support: access to faculty mentors with disabilities. Students stated that there is a need for more representation of disabled scholars. As such, they proposed featuring professors with disabilities as speakers or mentors on campus. One noted, “It would show (disabled) students that there aren’t any barriers to what we can accomplish.” Others wanted “dedicated peer-to-peer mentoring” with experts in their field who experience similar disabilities. These experiences would enable discussions about what accessibility looks like in different fields, as well as how a range of academics use accommodations.

#### ***Theme Five: Services Specific to Graduate Education***

A major finding was that participants felt that accommodations offered are not geared toward DGS. As undergraduate and graduate programs present different requirements, participants felt that DSOs need to develop accommodations that are specific to the distinct needs of graduate students and have a designated DSP who is trained to determine what types of reasonable accommodations are relevant to graduate education.

##### **Non-Coursework-Related Accommodations.**

While accommodations for examinations, such as extra time or a reduced distraction environment, may be similar in undergraduate and graduate programs, accommodations for research or academic writing tasks, which are common in graduate programs, were described as not available. One student indicated that they did not receive accommodations for research-related tasks, and wished they had access to “a person to mediate what is a reasonable accommodation with my PI (principal investigator).”

Another unique element of graduate education is that many assignments or requirements are not affiliated with any particular course, where most undergraduate accommodations are applied. In contrast, graduate students may receive assignments from their advisors relating to research, publication or conference presentation-related tasks, and may need

to complete degree-related competencies (e.g., comprehensive exam). Several participants highlighted that although they use accommodations through the DSO, the office only informs their classroom instructors of accommodations, not their advisors. “I wish my accommodations were implemented and known by advisors,” one student shared. This particular student noted that most of their current work in their program occurs outside of the classroom. As such, they shared that their advisor needs to be notified of their accommodations, as this individual oversees the DGS’s current duties.

**Supporting DGS Skill Development.** Participants also described wanting other services or resources that support graduate student skill development, including career-readiness for the academic job market and graduate education-specific workshops. Participants described how typical career-services for graduate students assist with curriculum vitae, job application materials, such as cover letters and research statements, and interview and presentation skills. However, participants noted an absence of career services specific to DGS. One participant shared that they did not receive any guidance relating to how or when to discuss needed accommodations when applying to academic jobs. Another participant was concerned about managing day-long interviews, which are typical for positions in academia, and how to request accommodations during this process.

Participants also shared a need for graduate education-specific workshops that are geared toward DGS. For instance, several students mentioned a need for workshops to provide support for academic writing tasks and executive functioning, including time management. Several others described wanting a collaborative space to work on research tasks and to receive coaching as they develop these skills. Participants also sought workshops involving managing finances as a DGS, such as identifying financial aid opportunities to support disability-related expenses.

## Discussion

This study examined data from a previously conducted survey to identify barriers DGS face to registering with ODS and what services DGS need. Survey results indicated that while almost all participants understood the concept of disability, only half understood what reasonable accommodations were available, particularly for graduate students. The majority of participants did not register with their institution’s DSO and cited being unaware that this office could serve graduate students, the types of supports that were available, or who was eligible

to register. Other students did not self-disclose disability or register as they felt doing so could cause them to be discriminated against or stigmatized within their institution.

Participants in this study conveyed a need for expanded access to obtaining needed supports, including DSOs requiring less rigorous disability-documentation to register and the increased availability of accommodations related to online learning. They also noted a lack of disability awareness training for faculty and opportunities to connect with other DGS on their campus and stated a need for these resources.

When DSOs emerged in the United States, they were originally created to support undergraduate students (Madaus, 2023). Additionally, larger numbers of undergraduate students currently report disability than graduate students (21% versus 11%). As such, most services provided by typical DSOs accommodate the needs of undergraduate education. While DGS in this study indicated needs similar to those reported by undergraduate students with disabilities (e.g., reduced documentation of disability requirements, availability of assistive technology; Hong, 2015; Malcolm & Roll, 2017), they also expressed the need for accommodations and supports that specifically respond to the demands of graduate-level education. Suggested services include graduate-specific DSPs, non-course-work-related accommodations, such as supports for research duties and academic writing, career services specific to DGS, and workshops to support DGS skill development.

## Implications for Postsecondary Education Professionals Who Work with Graduate Students

This study’s findings suggest that postsecondary educational professionals require training about DGS. Participants describe that as DSPs did not offer supports specific to graduate school, there is a need for DSPs to be designated and trained to work with this population. Further, participants indicated that both instructors, as well as graduate advisors require training about disability and how to appropriately work with and accommodate DGS.

### Graduate Faculty Training

Both disabled undergraduate and graduate students feel that faculty do not understand their needs nor how to support them (Kendrick, 2017; Marshak et al., 2010; Tamjeed et al., 2021). As fewer graduate students self-report disabilities compared to undergraduate students (12% versus 19.4%; NCES, 2018), and services/accommodations offered by DSOs typically cater to undergraduate student needs (Tamjeed et al., 2021), graduate faculty may not be as likely to be

fluent with disability, accessibility, and accommodation-related knowledge. As such, trainings need to be developed for faculty to provide disability-awareness, accessible and inclusive teaching and leading practices, and information about how graduate students can work with available disability-related resources (e.g., DSOs) on campus. These trainings should not only be made available to graduate faculty who teach classes, but also those who serve as advisors.

Graduate student advisors play critical roles in their students' success (Baird, 1995). Both masters, but to a greater extent doctoral students, complete work outside of courses, including conducting research, preparing academic manuscripts, presenting at academic and research conferences, and assisting with and co-instructing courses. These non-course-related duties are typically supervised by a student's advisor. Additionally, advisors provide letters of recommendation for academic jobs and connect students with their own and colleagues' research and academic writing or conference presentation opportunities. It is likely that DGS face the same barriers to completing these academic tasks as they do when completing coursework. As such, advisors should be notified by DSOs of accommodations that should be provided, similarly to course instructors. Not only would this support assure consistency in accommodation provision, it would better protect graduate students' confidentiality, as DSOs indicate what accommodations are necessary, but do not share students' disability diagnoses. Additionally, determination of reasonable accommodations would be decided by DSPs, who possess expertise in disability knowledge and what accommodations are reasonable. If these decisions are left up to advisors, they may not be familiar with disability, nor legal requirements regarding what constitutes reasonable accommodations, which could lead to graduate students not having equitable access to accommodations.

### ***Graduate Student Specific Services***

Graduate students in this study identified wanting many of the same supports that undergraduate students seek, including evaluations of disability, additional mental health services, DSPs who are trained specifically for disabilities, opportunities to connect with other students with disabilities. Additionally, participants confirmed previous findings that services provided by DSOs are geared toward undergraduate students (Kendrick, 2017; Tamjeed et al., 2021). There is a need for DSPs to consider the ways in which graduate education differs from undergraduate education, particularly relating to the additional requirements outside of classes. Participants in this study suggested that DSOs should establish a DSP

who specifically works with graduate students.

### ***Advertise and Streamline Services for DGS***

DSOs should ensure that graduate students are made aware of their services, who is eligible for them, and how to register. This study found that more than half of students surveyed did not register for disability services, and most of them cited lack of information, specifically about available services and eligibility requirements, as the reason. There is also a need to clarify what offices will provide accommodations for different graduate student roles. Accommodations for postsecondary students are provided by DSOs; however, human resources offices oversee employee accommodations. As graduate students can function as both students and employees (e.g., for graduate assistantships, as instructors), it may not be clear to them if they need to access accommodations from multiple offices. DSOs should streamline these processes by coordinating all accommodations themselves or designing efficient collaborative practices with human resources offices. This type of collaboration would prevent DGS from needing to register with and submit documentation of disability to two separate offices, an arguably burdensome task.

While graduate students shared that increased awareness of disability, accessibility, and the accommodations process are needed on campus, they also identified disability-related stigma as a reason they did not self-disclose disability nor seek services. This finding is consistent with recent studies of stigma (e.g., Ball & Traxler, 2023) and emphasizes the need for this increased awareness as well as the need for campus diversity, equity and inclusion initiatives to highlight disability.

### **Implications for Postsecondary Education Researchers**

This study examined the perspectives of DGS at one large institution. Future research should survey students at additional institutions, including those of different sizes to see how the experiences of DGS complement or contrast these findings. Additionally, while professionals at the site of this research opted not to collect demographic information from participants, future research should do so, if possible, and compare responses by student characteristics, such as gender, race, type of disability, and field of study, to note if there are differences for different groups of DGS.

While the survey used in this study allowed participants to provide open-ended feedback, individuals may be better able to expand upon their experiences via interviews and focus groups, in which they can interact with an interviewer or other focus group participants and answer follow-up questions. Alternatively,

development and validation of a quantitative scale could allow graduate programs to systematically collect data and readily determine support needs. As such, future research should create opportunities for DGS to share their experiences using qualitative and quantitative research methods. Additionally, there is a need to frame future research through an academic ableism theoretical framework (Dolmage, 2017).

Academic ableism builds on the notion that postsecondary education has been built for people without disabilities by people without disabilities, and that this historical precedent continues to saturate current postsecondary environments, positioning disability as the antithesis of success in postsecondary education (Dolmage, 2017). Current systems of accommodation do not recognize, nor attempt to remediate, the inaccessible nature of postsecondary education. Instead, people with disabilities, including students, faculty, and staff, must request accommodations on an individual and retroactive basis. This system places the burden of fixing inaccessible environments on disabled scholars. Through the theoretical lens of academic ableism, these systems and structures can be critically evaluated to reveal barriers in the current accommodation practices and identify alternative solutions that empower disabled scholars.

Graduate students in this study described how many of the barriers they faced were influenced by the professionals with whom they worked, including faculty and DSPs. Future research should also examine the experiences of graduate faculty, and specifically investigate the types of disability awareness and inclusive practice training they may or may not have received. Researchers should also explore the ways in which DSPs currently support graduate students with disabilities, how effective they perceive these services to be, as well as their effects on recipients.

### Conclusion

As DGS continue to register with DSOs, there is a need for these offices to be aware of the needs of this population and ensure that appropriate supports are available to them. DSOs need to advertise available supports to and within graduate colleges and explicitly clarify that their offices work with DGS. Disability awareness trainings and those about the services DSOs offer should be made available to graduate faculty and advisors so they can better understand the needs of DGS and how DGS can use available resources. Finally, DSOs need to develop accommodations and supports that remove barriers within all components of graduate education, not only classes.

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## About the Authors

Emily Tarconish received her B.A. degree in English and Women's Studies from The Pennsylvania State University and Ph.D. from The University of Connecticut. Her experience includes working as a vocational rehabilitation counselor for the Pennsylvania Office of Vocational Rehabilitation and as the Director of Student Accessibility Services for Clark University. She is currently a teaching assistant professor in the Department of Special Education at The University of Illinois Urbana Champaign. Her research interests include examining how inclusive instructional practices and other available resources influence disabled postsecondary students' learning, sense of belonging and college readiness skills She can be reached by email at [ejt@illinois.edu](mailto:ejt@illinois.edu).

Allison Lombardi received her M.A. degree in Education from the University of California, Berkeley, and Ph.D. from the University of Oregon. She is currently a professor in the Department of Rehabilitation Psychology and Special Education at the University of Wisconsin Madison. Her research interests include the transition from adolescence to adulthood, with a particular focus on college and career readiness and higher education experiences of disabled students. She can be reached by email at: [alombardi2@wisc.edu](mailto:alombardi2@wisc.edu).

Tarah Jordan-Hicks (she/they) received her B.A. degree in Women's & Gender Studies from Clark University and M.A. in Higher Education & Student Affairs, as well as a Graduate Certificate in Postsecondary Disability Services, from the University of Connecticut. Her experience includes working as a coordinator of student accessibility services at Quinnipiac University. She is also a part-time instructor at Quinnipiac University, occasionally teaching a first-year seminar on disability rights and advocacy. Her research interests include neurodivergence—particularly in un/under-diagnosed populations—, ableism in higher education, and Universal Design. She can be reached by email at: [tarah.jordan-hicks@quinnipiac.edu](mailto:tarah.jordan-hicks@quinnipiac.edu).



# Knitting as a Coping Strategy for Autistic First-Year College Students (Practice Brief)

Heidi Hillman<sup>1</sup>

## Abstract

This pilot study explored the potential of knitting as a stress reduction activity to promote overall wellness for first year college students with autism spectrum disorder. It was hypothesized that after engaging in a series of knitting sessions, participants would report a decrease in stress levels, as demonstrated using a pre- and post-session stress assessment. Six college students consented to participate in eight weekly knitting sessions to determine the effectiveness of knitting on managing stress. Participants completed a 10-Item Perceived Stress Scale, a knitting experience survey, participated in a 90-minute knitting group weekly for eight weeks, and recorded time spent knitting in between sessions. Participants reported their stress levels slowly reduced over the eight weeks as well as positive experiences with knitting. This study allows us to be cautiously optimistic that knitting helped first-year autistic college students manage their stress levels. Disability service professionals and college counseling center staff may find knitting groups to be of value for stress reduction in autistic college students. Additional research on the use of such groups is warranted.

*Keywords: autism, college students, knitting, stress*

Stress is a natural response to potential threats and challenges, but chronic stress can lead to numerous health issues (Howland et al., 2017; Salleh, 2008; World Health Organization, 2023). The transition to college can be stressful for many young adults (Matud et al., 2020) and can be attributed to a variety of factors including academic demands, social adjustments, time management, loneliness, and independent decision making (Barbayannis et al., 2022; Freire et al., 2016; Garrett et al., 2018; Karyotaki et al., 2020; Reddy et al., 2018). Evidence suggests that stress plays a significant role in college. For example, a 2015 National College Health Assessment Survey reported that 75% of college students reported feeling stressed (American Psychological Association, 2020) and up to 87% of college students surveyed across the United States reported stress during college, negatively impacting academic performance, motivation, well-being, and mental health, leading to increased dropout rates (American Psychological Association, 2020; Green et al., 2022; Pascoe et al., 2020).

Stress in college can have specific effects for students with Autism spectrum disorder (ASD). ASD is a complex neurodevelopmental condition characterized by challenges in communication and social in-

teractions (American Psychiatric Association (APA), 2022; Bangerter et al., 2017; National Institute of Mental Health, 2024); approximately 1 in 36 individuals are diagnosed with ASD (Centers for Disease Control and Prevention, 2024). Autistic individuals prefer routines and consistency, making transitions like beginning college especially stressful because of the unknown challenges and uncertainties that disrupt their daily lives (Hillman, 2020). Since autistic students are attending colleges at a growing rate (Cage & Howes, 2020; Field, 2022), recognizing the impact of stress on these students and teaching them healthy coping strategies is crucial for a successful transition to college while maintaining a healthy well-being (Cage & Howes, 2020; Field, 2022).

This paper uses identity-first language such as “autistic individuals” rather than person-centered language. Many individuals in the autism community, including the author of this paper, prefer identity-first language because we view autism as an inseparable part of our identity and take pride in it (Ryan, 2019).

Knitting, a popular and versatile craft, combines repetitive motions with physical and cognitive skills, allowing for the creation of numerous items (Corkhill et al., 2014; Riley et al., 2013). Knitting—such as han-

<sup>1</sup> Eastern Washington University

dling needles, managing yarn tension, and performing stitches— can be challenging for those with low fine motor skills, as it requires precise finger movements, hand-eye coordination, and dexterity. However, over time, knitting can be a therapeutic way to gradually improve dexterity and finger control. Since 2000, knitting has gained popularity for its therapeutic benefits, including reducing stress and anxiety through the repetitive motions and tactile experiences such as handling soft, colorful yarn (Brooks et al., 2019; Nordstrand et al., 2024; Riley et al., 2013). Additionally, knitting in groups fosters a sense of belonging (Nordstrand et al., 2024; Palmer & Kawakami, 2014; Riley et al., 2013). Although research on knitting's impact on well-being is limited, its relaxing qualities suggest knitting can be an effective stress reliever.

### Depiction of the Problem

While many colleges offer resources to support students' well-being, they often lack supports for autistic students managing stress and anxiety (Cai & Richdale, 2016; Field, 2022). Teaching first-year autistic college students coping strategies to reduce their stress as they transition to college is imperative. Knitting appears to be a promising activity for autistic college students, potentially helping them manage stress effectively while offering a creative outlet. Given its therapeutic benefits, exploring knitting's effectiveness in managing stress for autistic students is warranted.

Research on autistic students transitioning from high school to college is sparse; more research is needed on ways to help autistic college students make the transition successfully (e.g., Cullen, 2021; White et al., 2024; Wischnewsky, 2023). Effective stress management could facilitate a successful transition. While knitting has demonstrated benefits in reducing depression, anxiety, and chronic pain (Riley et al., 2013), its potential to reduce stress among first-year autistic college students remains largely unexplored. This study is the first of its kind to investigate the role of knitting as a stress management tool for these students, potentially making their initial college experience less overwhelming.

### Participants, Setting, and Materials

Six college students—four males, two females, aged 19-28—diagnosed with ASD were recruited either through university disability services, which sent out an email to all students with an accommodation, or via announcements using a recruitment script, in general education classes. None had prior knitting ex-

perience. The university Internal Review Board (IRB) from the respective university approved the study (HS-6284); participant consent was obtained prior to starting the project and participants were assigned an identification number (i.e., P1) to maintain confidentiality. The study took place in a medium-sized meeting room located in the student union building, during spring semester between mid-January and March. Students chose one small animal pattern and were provided single-pointed 10-inch wooden knitting needles, extra yarn, tape measure, and scissors.

### Description of Practice

The Perceived Stress Scale (PSS) is a widely used tool for assessing stress perception (Cohen et al., 1983; Lee, 2012). The PSS-10 uses a 5-point Likert scale from 0 “Never” to 4 “Very often,” with higher scores indicating higher stress. Students completed the PSS-10 version before the first knitting session and after the last knitting session.

Each 90-minute knitting session was conducted in a group setting. During the first session, participants learned the basic knit stitch and how to cast on. They watched a one-minute tutorial video and observed the researcher demonstrate the techniques. The remainder of the session was spent knitting and socializing, with the researcher helping as needed; participants, after the first session, received data sheets to record their knitting activity between sessions. Participants took their work and supplies home for practice and returned to the next session with their supplies.

For the remaining seven sessions, during the first ten minutes the researcher viewed participants' data sheets and recorded the amount of time participants knitted between sessions. During the remaining 80 minutes of each knitting session, participants knitted and socialized with each other. A few participants knitted on their own, but most conversed while knitting. Participants either knitted using the knit stitch, or they learned the purl and rib stitches. During the last 15 minutes of each session, the researcher asked participants—as a group—about their perception of knitting on their stress. Most participants reported that knitting reduced their stress mainly due to the repetitive motions of knitting. At the end of the last session, participants completed a knitting experience survey, describing the effects of knitting on their anxiety levels. Additionally, they completed the PSS-10 to obtain a post-study anxiety score. By the end, all students completed one animal, and three were working on a second animal.

## Evaluation of Observed Outcomes

All data collected were stored via a code number assigned to each participant (example, P1 or P2). The participants' perceived stress levels were measured using PSS-10 scores, with results indicating a decrease in stress. PSS-10 scores ranging from 0-13 are considered low stress, scores ranging from 14-26 are considered moderate stress, and scores ranging from 27-40 are considered high stress. As shown in Figure 1, all participants' pre-test scores were considered moderate and high stress. The average pre-study PSS-10 score across participants was 26, and the average post-study score across participants was 11, which was a significant decrease in stress levels.

It is worth noting that all participants attended every knitting session. This is noteworthy because consistent participation indicates strong engagement and commitment to the intervention, which enhances the reliability of the study's findings and provide more robust data on the effects of the knitting program.

Between sessions, participants reported knitting an average of one hour a day, four days a week (Table 1). Participant five recorded the most time knitting, with 49 hours. Participants one and six recorded the lowest time knitting between session, with 33 hours each. The student who knitted the most between sessions experienced the largest decrease in anxiety scores, supporting the hypothesis that knitting can aide in anxiety reduction.

## Implications and Portability

While preliminary, the results suggest knitting may help first-year autistic college students reduce their stress. As anticipated, perceived stress increased after the first session, likely due to the challenge of learning a new skill. Perceived stress levels also rose at the end of the eighth session, possibly due to the disruption of an established weekly routine, which can be anxiety-inducing for autistic individuals.

Participants reported knitting the most after the first session, motivated by their desire to improve their knitting skills. Additionally, they reported knitting was helpful in managing their stress during mid-term exams and papers, using "knitting breaks" to relax and de-stress. Notably, three participants (P2, P4, P5), after the third knitting session, began meeting at the campus library in the evenings to knit together.

Although there were not enough data to conclude that knitting caused the decreased stress, participants' anecdotal responses increase our confidence that knitting had a role in stress reduction. For example, one participant noted, "Knitting is my go-to stress reliever. The rhythmic motion of the needles and the

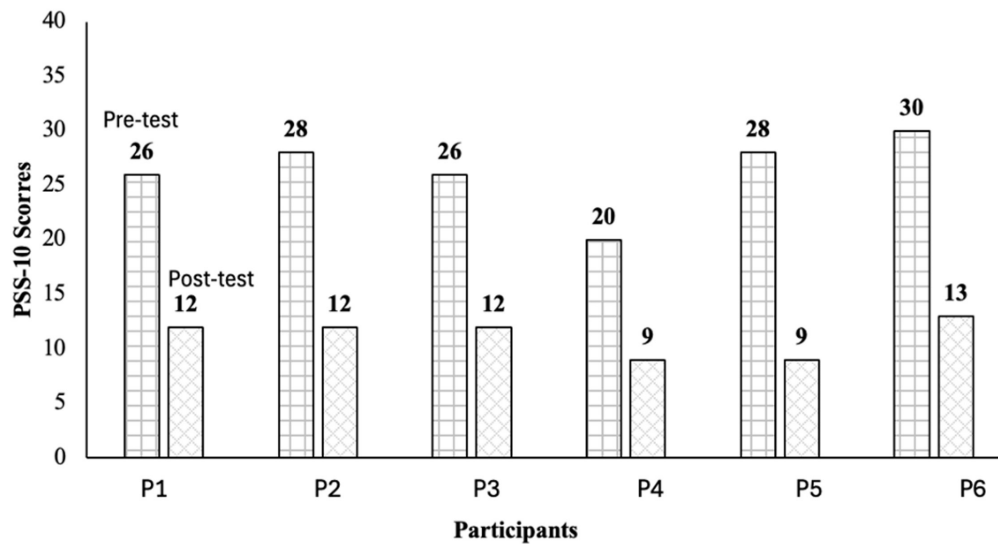
focus required to create something tangible helps me unwind after a long day of classes and studying." Another explained, "I've found knitting to be a meditative practice. It takes my mind off academic stress and gives me a sense of accomplishment when I see my progress." A third participant shared the following: "Whenever I'm feeling anxious about deadlines, I turn to my knitting. It's surprisingly calming and helps me focus on something positive, which in turn makes the stress of my studies feel more manageable."

Despite these positive results, there is a need for continued research, especially since this is the first study to evaluate the effects of knitting on reducing stress of first-year autistic college students. Evaluating how stress reduction through knitting impacts students' academic performance and college engagement could be valuable, as these are key goals in supporting autistic students. Understanding the link between reduced anxiety and improvements in academic success and campus involvement would provide insight into knitting's broader effects and help achieve the primary aim of enhancing students' college experience.

Additionally, disability resource offices could enhance student support by implementing knitting programs that include regular workshops, material supplies, and a supportive group atmosphere. Partnering with campus mental health services can further highlight the broader benefits of knitting and contribute to improving students' educational experiences and college integration.

Despite the potential effectiveness of knitting, several limitations exist. First, this study had six participants, limiting the generalizability of the findings to the broader population of autistic college students. Participation may have been limited because potential participants might have believed that their restricted fine motor skills would preclude them from successfully knitting. Although the results are promising, further research with larger samples is needed to determine whether knitting effectively reduces anxiety in autistic college students or if the observed benefits are due to the development of group interaction and improved peer relationships. Future studies should include more participants to better assess the intervention's efficacy.

Second, participants' stress levels were measured using self-report assessments. Comparing the stress levels of those who knit with those who do not knit could provide a clearer understanding of knitting's impact on stress reduction. Future research should compare stress levels between knitting groups and non-knitting groups and have participants report their coping techniques throughout the week. This approach would provide a more comprehensive view of

**Figure 1***Participants' PSS-10 scores Pre-Study and Post-Study***Table 1***Number of Days and Hours Students Knitted Each Week, Between Group Sessions, and the Total Number of Hours Across All Sessions*

Participant	Session 2	Session 3	Session 4	Session 5	Session 6	Session 7	Session 8	Total
<b>P1</b>	5 days, 5 hours	5 days, 5 hours	4 days, 4 hours	4 days, 6 hours	3 days, 3 hours	5 days, 5 hours	5 days, 5 hours	<b>31 days</b> <b>33 hours</b>
<b>P2</b>	5 days, 8 hours	5 days, 6 hours	4 days, 5 hours	4 days, 6 hours	3 days, 4 hours	4 days, 5 hours	4 days, 8 hours	<b>29 days</b> <b>42 hours</b>
<b>P3</b>	5 days, 5 hours	5 days, 5 hours	4 days, 4 hours	4 days, 6 hours	3 days, 3 hours	4 days, 4 hours	4 days, 8 hours	<b>29 days</b> <b>35 hours</b>
<b>P4</b>	5 days, 5 hours	5 days, 5 hours	4 days, 4 hours	5 days, 4 hours	4 days, 6 hours	4 days, 6 hours	5 days, 8 hours	<b>32 days</b> <b>38 hours</b>
<b>P5</b>	5 days, 8 hours	5 days, 5 hours	4 days, 5 hours	5 days, 6 hours	4 days, 8 hours	5 days, 8 hours	5 days, 10 hours	<b>34 days</b> <b>49 hours</b>
<b>P6</b>	5 days, 5 hours	5 days, 5 hours	4 days, 4 hours	5 days, 5 hours	4 days, 4 hours	5 days, 5 hours	5 days, 5 hours	<b>33 days</b> <b>33 hours</b>

how knitting is used in relation to other stress management strategies. Additionally, since this study took place during the winter months, it would be interesting to conduct a similar study during spring months to learn whether the time of the year impacts time spent on knitting. Third, although participants reported reduced stress, future research should evaluate whether knitting decreases stress outside the group setting or whether the group environment itself contributes to stress reduction. Lastly, long-term follow-up data would be valuable when determining the sustained use of knitting as a coping skill.

This study offers preliminary evidence supporting the therapeutic benefits of knitting, particularly its potential to reduce stress. Although limited research exists on the effects of knitting in helping first year autistic college students manage their stress, this study suggests that further exploration into the stress-reducing benefits of knitting is worthwhile.

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### About the Author

Heidi Hillman, Ph.D., earned her doctorate in Applied Behavioral Sciences from the University of Kansas. She has extensive experience as a behavioral psychologist and licensed mental health therapist. Dr. Hillman is currently a Professor in the School of Psychology at Eastern Washington University. Her research and clinical expertise center on depression and anxiety in adolescents, as well as autism spectrum disorder. She can be contacted at [hhillman@ewu.edu](mailto:hhillman@ewu.edu).

# **Faculty Members' Roles in Elevating Autistic College Student Success (Practice Brief)**

**Brett Ranon Nachman<sup>1</sup>**

**Bradley E. Cox<sup>3</sup>**

**Karli Yarber<sup>2</sup>**

**Emily Raclaw<sup>4</sup>**

**Kristen Gillespie-Lynch<sup>5</sup>**

**Julie Lounds Taylor<sup>6</sup>**

**Nicholas W. Gelbar<sup>7</sup>**

## **Abstract**

In their pursuits of feeling successful, autistic college students may turn to several sources and tools. Until now, however, we largely have not understood what most matters to them. Stemming from a national study of autistic college student success, this paper explores the role of faculty members as a major piece of students' feelings of success. Our findings demonstrate how faculty who are supportive, understanding, and communicative to autistic learners are integral to their sense of comfort and confidence. On the other hand, autistic students note how the lack of disability and autism education, inclusive teaching measures, and emotional availability among faculty can compromise their feelings of success and thus represent major areas of improvement. We provide recommendations on how higher education institutions more broadly can invest in their faculty and additional measures to support autism acceptance, as well as an enhanced emphasis on inclusive measures to serve autistic students.

*Keywords: autism, disability, professional development, faculty, autism education*

Much like their fellow college staff, faculty members are often under-resourced and lack training in how to most effectively work with their autistic students (Gibbons et al., 2015). At times faculty members' lack of familiarity with autism can contribute to their shedding negative attitudes or demonstrating insensitivity (Demirok & Baglama, 2015; Johnson et al., 2023), further inhibiting the quality of their students' learning experiences. As colleges increasingly see rates of autistic students on college campuses, campus personnel require further education about autism, which can result in many positive ramifications, including elevating faculty preparedness in teaching autistic students (Nachman, 2022). What may matter most, though, is when faculty have the chance to learn from autistic college students on what matters to them (Waisman et al., 2023). In that spirit, this practice brief explores findings of a national study on autistic college student success that show what faculty can

do to help autistic students feel more successful. We pull on these insights, particularly related to the ways faculty can better support autistic college students' experiences, to inform actionable change campuswide.

## **Summary of the Literature**

An undercurrent of attention to autism in higher education over the past decade has prompted both awareness and investment in how faculty can meet their needs, from the emergence and rise of organizations like the Autistic Self-Advocacy Network and College Autism network, to depictions of autistic college students on series like *Atypical* and *Love on the Spectrum*. Whereas some faculty are more adeptly positioned to learn about autism because of the distinct institutional contexts they occupy, such as the college featured in Shmulsky et al. (2019) that boasted a student population that was one-third autistic,

<sup>1</sup> University of Pittsburgh; <sup>2</sup> University of Arkansas; <sup>3</sup> Michigan State University; <sup>4</sup> Marquette University; <sup>5</sup> College of Staten Island; <sup>6</sup> Vanderbilt University; <sup>7</sup> University of Connecticut

other higher education spaces are far from that point. Faculty participants in Zeedyk et al. (2019) lamented the lack of professional development about autism, essentially lacking the formal outlet to engage in such growth. A paradox surfaces, in that faculty want to improve their autism education yet may not have space within their workplaces to engage in that development (von Below et al., 2021).

At times, though, faculty create space outside of their professional workplaces and demonstrate a personal investment in their autism education, such as intentionally opting into autism trainings (Waisman et al., 2023). In the trainings explored by Waisman et al. (2023), faculty had the opportunity to progress through autism and Universal Design (UD) modules that familiarized them with how to more effectively serve autistic college students. In the end, participants experienced continued benefits in the teaching practices they now had in their toolbelt, as well as held reduced autism stigma (Waisman et al., 2023). Similarly, Nachman (2022) considered graduate students and postdocs, who aimed to be faculty members and engaged in professional development around autism in education that drew on UD strategies; participants expressed increased self-confidence and self-knowledge about autism months after participation. When faculty have personal connections to autistic people and showcase a commitment to social justice issues (Austin & Peña, 2017), among other priorities, they demonstrate more responsive teaching.

### **Depiction of the Problem**

Despite the best of intentions, most faculty remain relatively unaware of the teaching strategies and general practices they can employ to support their autistic learners (von Below et al., 2021). Existing literature shows the value of autistic students seeking routine, project management support, and distraction-free learning environments, as well as knowing how to engage in help-seeking behaviors, among other tools in their classroom environments (Burgstahler & Russo-Gleicher, 2015). Ultimately, to best know what teaching strategies currently support—and could support—autistic college students requires asking them what works and what can support their success.

### **Description of Practice**

Sparked by the undercurrent of interest around faculty training and development in supporting autistic learners in the classroom, we developed a nationwide study on autistic college student success.

Distributed via disability services offices, social media, disability and education list-servs, and autism organizations, the “Postsecondary Education: Autistic Collegians’ Experiences of Success (PEACES)” survey reached autistic undergraduate college students through a variety of channels. The 30-minute survey asked them to share their demographic information, responses to open-ended questions, and perceptions about their success across a series of Likert-scale items. The PEACES study is longitudinal. This paper draws on survey data from Fall 2022; students could receive a \$25 gift card upon successful completion.

For this brief, we drew on the responses from two open-ended questions that asked the following:

1. When you think about the things that have been most helpful to you during college, what comes to mind?
2. What else, besides the resources you currently have, do you think would help you be successful in college?

Pulling on responses to these questions, we disentangled data related to faculty, classroom experiences, and other related topics that would afford insight into knowing what current practices students view as helpful and what opportunities for growth exist around faculty support. Our team members, several of whom are neurodivergent, opt for using identity-first language, mirroring the prominence of autistic adults who use this terminology (Taboas et al., 2023).

Through our exploration of the questions above, we created a matrix (Table 1) intended to help faculty explore specific ways in which they may better support autistic college students. Anchored in existing scholarship, this table directly connects autistic student-identified faculty support need areas with tangible practice recommendations for faculty. In the sections below, we discuss why these specific support areas and associated recommendations may be especially helpful for faculty who aim to better support autistic learners.

### **Participants**

Study participants are emblematic of autistic undergraduate college students in the United States, but whose stories and perspectives are often omitted from current scholarship. Among our 425 participants from Wave 1 of data collection in Fall 2022, one-third are self-diagnosed individuals, illustrating more recent trends for individuals to engage in self-diagnosis (Overton et al., 2023) yet remains nascent in research (for an exception, see Botha et al., 2022). Meanwhile,

our sample consists of 27% participants of color, which still falls short of the general proportion of undergraduate students of color enrolled in higher education, approximately 40%, according to the National Student Clearinghouse (2024). Yet the sample size of autistic people of color in our study exceeds similar scholarship; more importantly, though, we echo Stapleton's and James' (2020) call to decenter whiteness in disability scholarship by honoring the success and opportunities noted by autistic people of color.

### **Evaluation of Observed Outcomes**

In the evolving landscape of higher education, the diverse needs and experiences of autistic college students have come into sharper focus, prompting an imperative reevaluation of faculty roles and responsibilities. We present findings that elucidate the profound impact that supportive and adaptive faculty can have in autistic students' lives, as well as opportunities for improvement that students call for.

When asked to share about the most helpful factors in their college career, 28.9% of students ( $n=123$ ) mentioned their professors. Though from vastly different backgrounds, interests, and geographical locations, these students still presented consistent thoughts regarding the value of faculty support. Their insights highlight the significant impact of faculty support, personalized attention, effective communication, and advocacy in augmenting their academic experience. Moreover, these insights reaffirm the concept that the role of educators extends beyond the mere dissemination of knowledge; it encompasses the provision of an environment conducive to the academic and personal flourishing of autistic students.

Many students highlighted the vital role of emotionally supportive educators, stressing the importance of empathy in the academic setting. Consistently students utilized verbiage like "patient," "understanding," and "attentive" to describe characteristics associated with their faculty. "Professors who understand and are flexible have made a big difference," one shared, representative of this larger notion that when faculty take the time to learn about their students' needs, the greater the opportunity for making adaptations that could serve them in feeling successful.

When faculty create channels of open communication, as students emphasized as important, they can be game changers in meeting their students. Professors who showed a willingness to listen and assist, or, at the very least, detail why expectations are in place and how to manage them, benefited students' bottom line. Autistic participants shared how they struggled to initiate conversations, thus appreciating

their faculty who offered opportunities to meet with them via office hours or allocate space for addressing questions. To "sit down with a professor and ask them to explain concepts differently" aided one student in their feeling of success. Another student mentioned how "office hours have been helpful for completing difficult assignments and assignments where I'm unsure exactly what to do." Yet traditional in-person office hours may not be most comfortable for every student; for instance, one noted "being able to email [faculty] questions" is beneficial. Furthermore, students appreciated faculty members who communicated some flexibility in their courses, especially in terms of adjusting assignment deadlines. "As long as they are willing to work with you in regards to deadlines/extensions... I find that it helps a lot." This feedback reinforces the importance of fostering an environment where dialogue and flexibility are integral to academic planning.

### **Areas of Improvement**

On the other hand, autistic students were asked what could change that would positively impact their success in college. Consistently, students proposed opportunities for faculty to engage in more disability education and inclusive teaching training, which would ultimately impact faculty adeptness in best serving their distinct needs.

### ***Disability Education and Inclusive Teaching***

Although autistic students, much like their neurotypical peers, may not necessarily know their professors' levels of familiarity and training related to issues like disability education—or even potentially have the expectation that their faculty will engage with them in ways similar to their high school educators—participants noted the value of autism professional development. "I believe it would be helpful if my college professors had a more thorough understanding of my autism diagnosis," shared one student. "Some even teach about disabilities in a very stigmatized and ableist way," another said. "If they were to get a better understanding of my needs and struggles, we would be able to work better together with my accommodations," they continued. Additional students mentioned how faculty unfamiliarity with disabilities overall and, ultimately, how faculty accounted for implementing their accommodations in the classroom, compromised their success. Even so, formal accommodations are not always necessary, but rather the individual instructor's willingness to employ inclusive teaching strategies, as evidenced by a student sharing that "professors asking the entire class how they can accommodate everyone, regardless of official disabili-

ity paperwork” would support them. Among these universally helpful ideas: providing “more specific instructions” and “different assignment expectations” that make assignments more concrete.

### ***Emotional Availability***

In concert, students viewed it important for faculty to demonstrate greater accessibility in their communication, inclusive of showing kindness, patience, and sensitivity to their unique needs. These areas of growth exist, even in the face of many remarks on how faculty are effective on this front. Yet not *all* faculty demonstrate these qualities, hence students’ desire for more faculty to harness these traits to elevate their course experiences. One student lamented faculty in one field at their institution who “don’t want to deal with anyone who’s having more trouble than average,” indicative that not all professors seek to create time with students who need more assistance. Commonly students shared how having “more open-minded professors” and engaging in “more individualized interaction” would go a long way in helping them feel successful. These remarks illustrate the necessity of faculty lending emotional availability and support or, if needed, referring them to other campus personnel to lend their unique expertise.

### **Implications**

Our findings showcase the necessity of colleges, including faculty and staff, implementing a multitude of measures to aid their autistic learners (see Table 1). Whereas disability services offices (DSOs) are often viewed as the go-to solution (Nachman, 2024), these under-resourced campus units may be unintentionally exploited by well-meaning faculty who want to learn inclusive Universal Design for Learning (UDL) principles. Implementing these principles often serve autistic learners (Austin & Peña, 2017) and was evidenced in our findings. Like Behling and Linder (2017), we view merit in partnerships forged between DSOs and teaching and learning centers for providing campus education around disability, though we recognize that college administrations adopting autism acceptance as a priority may make all the difference, especially when autistic faculty and staff handle the education (Wilson & Dallman, 2024). Thus, we push DSOs to leverage personnel and resources across campus partners to serve faculty education, including forging alliances with autistic faculty and staff. Campuses must also consider making disability trainings mandatory to all faculty and properly compensate these college personnel for their labor and expertise.

But not all responsibility to meet autistic college students’ success rests on faculty members’ shoulders. Through colleges more concretely and intuitively sharing with incoming students of *who* on campus can assist them with certain experiences and tasks, faculty may not be as frequently tasked with solving problems outside their purview. In tandem, students may not have a mismatch of expectations in how their college experiences will unfold compared to high school. With faculty more adeptly aware of who they can refer students with specific quandaries to (e.g., writing support), they can maintain boundaries while still showing themselves to be accessible. Ultimately, faculty who lend care and mentorship can make a major difference in autistic students’ lives, much like with their neurotypical peers. Amid all the recommendations for how faculty can improve their ways in supporting autistic learners is in expressing their humanity and desire to improve their students’ experiences.

Table 1

## Recommendations for Supporting Autistic College Students

Strategy	Student Perspectives from the PEACES Study	Recommendations Stemming from Scholarship	Sources
Demonstrate Universal Design for Learning principles	<p>“[It’s helpful to have] teachers that are flexible and offer information in multiple ways. Because things that work for me are often different from others.”</p> <p>“I’m an auditory/kinesthetic learner so being able to ask professors to record lectures and listen to them after classes is extremely helpful.”</p>	<ul style="list-style-type: none"> <li>• Bring in teaching approaches that unite kinesthetic activities and hands-on activities (Austin &amp; Peña, 2017)</li> <li>• Create routine with every class session (Burgstahler &amp; Russo-Gleicher, 2015)</li> <li>• Directly ask students what can support their learning (Austin &amp; Peña, 2017)</li> <li>• Draw on equitable principles stemming from Transparency in Learning and Teaching (TILT)</li> <li>• Incorporate activities that invite multiple ways for students to express their knowledge (Burgstahler &amp; Russo-Gleicher, 2015)</li> <li>• Present assignment expectations across multiple formats (Palmer et al., 2018)</li> </ul>	<p>Austin, K., &amp; Pena, E. V. (2017). Exceptional faculty members who responsively teach students with Autism Spectrum Disorders. <i>Journal of Postsecondary Education and Disability</i>, 30(1), 17–32.</p> <p>Burgstahler, S., &amp; Russo-Gleicher, R. J. (2015). Applying universal design to address the needs of postsecondary students on the autism spectrum. <i>Journal of Postsecondary Education and Disability</i>, 28(2), 199–212.</p> <p>Palmer, M. S., Gravett, E. O., &amp; LaFleur, J. (2018). Measuring transparency: A learning-focused assignment rubric. <i>To Improve the Academy</i>, 37(2), 173–187.</p> <p>TILT (n.d.). TILT Higher ed examples and resources. <a href="https://tilthighered.com/tiltexamplesandresources">https://tilthighered.com/tiltexamplesandresources</a></p>
Ensure students’ accommodations are met	<p>“Professors being empathetic and easy to work with for my accommodations [is helpful].”</p> <p>“[It’s helpful to have] extra time on tests or assignments as needed, office hours to sit down with a professor and ask them to explain concepts differently”</p> <p>“Professors who took the time to get to know me and best accommodate my needs [were most helpful]”</p>	<ul style="list-style-type: none"> <li>• Become a faculty mentor to autistic students to learn about their needs (Accardo et al., 2019)</li> <li>• Ensure accommodation needs are being met (e.g., keeping private testing spaces quiet; Mamboleo et al., 2020)</li> <li>• Expand knowledge on the types of accommodations that can be offered (Sarrett, 2018)</li> <li>• Extend time for everyone, so as to not place attention on the individual needing the accommodation (Mamboleo et al., 2020)</li> <li>• Get to know students early in the semester to adopt a proactive approach (Mamboleo et al., 2020)</li> <li>• Provide faculty office hours during course registration to help students figure out future courses (Accardo et al., 2019)</li> </ul>	<p>Accardo, A. L., Kuder, S. J., &amp; Woodruff, J. (2019). Accommodations and support services preferred by college students with autism spectrum disorder. <i>Autism</i>, 23(3), 574–583.</p> <p>Mamboleo, G., Dong, S., Anderson, S., &amp; Molder, A. (2020). Accommodation experience: Challenges and facilitators of requesting and implementing accommodations among college students with disabilities. <i>Journal of Vocational Rehabilitation</i>, 53(1), 43–54.</p> <p>Sarrett, J. C. (2018). Autism and accommodations in higher education: Insights from the autism community. <i>Journal of Autism and Developmental Disorders</i>, 48, 679–693.</p>

Strategy	Student Perspectives from the PEACES Study	Recommendations Stemming from Scholarship	Sources
Offer mentorship and emotional support to (all) students	“I have one professor who really made my college experience worth it. She gave me resources I needed and also was a good person to go to for advice on careers, classes, family, friends, and all sorts of things.”	<ul style="list-style-type: none"> <li>• Apprise students of campus resources to access (Patrick &amp; Wessel, 2013)</li> <li>• Check in on students and offer validation (Kaku et al., 2022)</li> <li>• Offer advice on how to navigate college (Patrick &amp; Wessel, 2013)</li> <li>• Promote opportunities for students to exert their agency (Patrick &amp; Wessel, 2013)</li> <li>• Provide awareness of strategies to support students' well-being (Kaku et al., 2022)</li> </ul>	<p>Kaku, S. M., McVey, A. J., Gerber, A. H., Pretzsch, C. M., Jones, D. R., Kodakkadan, F. M., ... &amp; Coffman, M. (2022). Experiences of student and trainee autism researchers during the COVID-19 pandemic. <i>Autism Research, 15</i>(3), 413-420.</p> <p>Patrick, S., &amp; Wessel, R. D. (2013). Faculty mentorship and transition experiences of students with disabilities. <i>Journal of Postsecondary Education and Disability, 26</i>(2), 105-118.</p>
Engage in autism education efforts	<p>“Sometimes professors don't understand autism, so the ones that do and are willing to help me when I'm having issues or need to take a mental health day are very integral to my success.”</p> <p>“If administration and professors knew more about autism, it would be easier.”</p> <p>“I believe it would be helpful if my college professors had a more thorough understanding of my autism diagnosis.”</p>	<ul style="list-style-type: none"> <li>• Communicate with autistic faculty and staff to gather context about their experiences (Wilson &amp; Dallman, 2024)</li> <li>• Demonstrate an ethic of care and value social justice (Austin &amp; Peña, 2017)</li> <li>• Learn about one's internal biases and engagement with disabled people (Gillespie-Lynch et al., 2022)</li> <li>• Mandate faculty to provide Universal Design-centered trainings (Waisman et al., 2023)</li> <li>• Realize the value of setting high expectations for students and providing support to meet their needs (Austin &amp; Peña, 2017)</li> <li>• Work cooperatively with other campus resources to create a comprehensive plan for supporting students (Austin &amp; Peña, 2017)</li> </ul>	<p>Austin, K., &amp; Pena, E. V. (2017). Exceptional faculty members who responsively teach students with Autism Spectrum Disorders. <i>Journal of Postsecondary Education and Disability, 30</i>(1), 17-32.</p> <p>Gillespie-Lynch, K., Bisson, J. B., Saade, S., Obeid, R., Kofner, B., Harrison, A. J., ... &amp; Jordan, A. (2022). If you want to develop an effective autism training, ask autistic students to help you. <i>Autism, 26</i>(5), 1082-1094.</p> <p>Waisman, T. C., Williams, Z. J., Cage, E., Santhanam, S. P., Magiati, I., Dwyer, P., ... &amp; Gillespie-Lynch, K. (2023). Learning from the experts: Evaluating a participatory autism and universal design training for university educators. <i>Autism, 27</i>(2), 356-370.</p>

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## About the Authors

Brett Ranon Nachman received his B.A. in journalism and mass communication from Arizona State University, and his M.S. and Ph.D. in Educational Leadership and Policy Analysis from the University of Wisconsin-Madison. He serves as an Assistant Professor of Higher Education at the University of Pittsburgh and Director of Research for the College Autism Network. His research focuses on issues pertaining to autism in higher education, as well as disability, community colleges, and teaching and learning. He can be reached via email at [bnachman@pitt.edu](mailto:bnachman@pitt.edu).

Bradley E. Cox received his B.A degree in business administration from the University of North Carolina, M.Ed. in higher education from the University of South Carolina, and Ph.D. in higher education from the Pennsylvania State University. He is currently an associate professor in the Department of Educational Administration at Michigan State University. His research interests focus on the personal, institutional,

and systemic factors that affect college access, and outcomes autistic college students. He can be reached by email at: [bradcox@msu.edu](mailto:bradcox@msu.edu).

Karli Yarber received her B.A. degree in Communication from Mississippi State University, M.S. degree in Agricultural and Extension Education from University of Arkansas, and Ph.D in Agricultural Communications from University of Arkansas. She is currently a Senior Analyst for Walmart's Corporate team in Environmental, Social and Governance. Her research interests include innovating adult learning and understanding how cultural and social contexts shape lived experiences and learning. She can be reached by email at [karliyarber@gmail.com](mailto:karliyarber@gmail.com).

Emily Raclaw received her M.S. degree in educational psychology from the University of Wisconsin-Milwaukee. She is a licensed professional counselor and certified rehabilitation counselor. Her experience includes working as a special education teacher for various school districts across southeastern Wisconsin, working as a vocational rehabilitation counselor for the state of Wisconsin and directing college support programs serving students with disabilities. She is currently a the director of Marquette University's On Your Marq- Neurodiversity Support Program. She can be reached by email at: [emily.raclaw@marquette.edu](mailto:emily.raclaw@marquette.edu).

Kristen Gillespie-Lynch got her B.A. from Indiana University and her Ph.D. from UCLA. She is a Professor of Developmental and Educational Psychology at the College of Staten Island (CSI) and the Graduate Center of the City University of New York. She is the Director of CSI's Advanced Certificate Program in Autism. She conducts participatory research, or collaborates with neurodivergent people, to adapt and evaluate programming to improve the lives of autistic people by providing direct supports and developing trainings to improve community autism understanding. She can be reached by email at: [kgillyn@gmail.com](mailto:kgillyn@gmail.com).

Julie Lounds Taylor received her B.A. degree in psychology from Wheaton College and Ph.D. in Developmental Psychology from the University of Notre Dame. She is currently a Professor in the Department of Pediatrics at Vanderbilt University Medical Center, and Co-Director of Vanderbilt's University Center for Excellence in Developmental Disabilities. Her research interests include understanding ways to improve the transition to adulthood and adult outcomes for autistic people and their families. She can be reached by email at [Julie.l.taylor@vumc.org](mailto:Julie.l.taylor@vumc.org).

Nicholas Gelbar received his B.S. degree and Ph.D. from the University of Connecticut. Currently, he is an Associate Research Professor at the University of Connecticut. He is also a Licensed Psychologist, National Certified School Psychologist, and a Board Certified Behavior Analyst at the Doctoral Level. He has expertise in a range of disability types and of the experiences of these students as they transition to and participate in higher education. He can be reached via e-mail at [Nicholas.gelbar@uconn.edu](mailto:Nicholas.gelbar@uconn.edu).

# 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.
- Manuscripts must comply with ethical standards governing the conduct of research. This includes prior review and approval by an appropriate institutional review board (IRB) or research ethics committee (REC) when applicable and especially when human subjects are involved. Authors are expected to include a clear statement in the manuscript regarding this approval. If ethics approval was not required, a brief explanation should be provided (e.g., "This study involved publicly available anonymized data and did not involve human subjects."). The journal reserves the right to request documentation of ethics approval, participant consent forms, or correspondence with regulatory bodies as part of the review or publication process.
- 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 ex-

haustive, 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 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:
  - o Sample papers (end of Section 2, pp. 50-67).
  - o Strategies to improve your writing (APA 4.25-4.30).
  - o Tables checklist (APA 7.20).
  - o Figure checklist (APA 7.35).
  - o In-text citation styles (Table 8.1).
  - o Examples of direct quotations in the text (Table 8.2).
  - o Reference examples (section 10 and 11).
  - o 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:
  - o A cover letter (APA 12.11)
  - o A masked version of your manuscript
  - o 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.org](mailto:jped@ahead.org).

### 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](mailto: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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