Experiences of College Students with Physical Disabilities

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KEYWORDS:
physical disability, student retention, freshman orientation, accessibility

Abstract
Social connection, academic support, and accessibility are documented needs of college students with physical disabilities. Past research lacks specific implementation recommendations and devalues individual stories, ignoring informative data. This project integrated literature and website reviews, interviews, and personal experience to gain an understanding of the perspectives of these students and investigated Northern Kentucky University’s current understanding of and response to their needs. Emerging themes included involuntary self-disclosure and misunderstandings of disability. The project conclusions involved practical changes at NKU, including additional disability training in target areas, and possibilities for moving forward at NKU and in research on the topic.

Experiences of College Students with Physical Disabilities

Academic research in the area of physical disabilities is growing. Yet, there are still recognized omissions in both research and application. Physical disabilities include any physical or medical condition that significantly impacts daily life. These include, but are not limited to, conditions such as visual or hearing impairments, mobility restrictions, and seizure disorders. In this research, physical disabilities are defined as those that primarily impact the body, and cognitive disabilities are those that primarily impact the mind. Although research does not distinguish between these two categories of disability, the purpose of this paper is to focus primarily on physical disabilities. People with physical disabilities face a variety of challenges and obstacles to everyday activities, independence, and educational and career achievement (Aamlid & Brownfield, 2019; Gaskin et al., 2021; Jensen et al., 2014; Kotera et al., 2021; Lippold & Burns, 2009; Salt & Jahoda, 2020). College students impacted by physical disability are limited in multiple ways. They are forced to consider physical accessibility over other factors like academics and finances when choosing a university, and often express significant loneliness (Jensen et al., 2014; Kotera et al., 2021; Wessel et al., 2015 as cited in Aamlid & Brownfield, 2019). While some of these barriers are known through research, an in-depth study of the experiences of college students with physical disabilities is noticeably absent from the literature.
Partially due to the able-bodied voices dominating the current academic discussion, research consistently overidealizes current accommodations, assuming effectiveness without sufficient investigation (Aamlid & Brownfield, 2019). Case studies in which authors listen to an individual’s representations of these issues are able to uncover the failing of current accommodations, but much of the mainstream research neglects these issues (Aamlid & Brownfield, 2019). When this is the case, universities and colleges may believe they are prepared for—and in fact be unaware of—the challenges that are faced by students on their campus. The presence of a disability-related office does not ensure that all students will have equal access and adequate accommodations. Each individual’s needs vary significantly, so it is vital to include case studies, qualitative research, and individual perspectives in this type of research.

Much of the research on students with physical disabilities focuses on able-bodied peers’ perception of those with disabilities, and other researchers overemphasize quantitative data, focusing on diagnosis details and utilization of specific resources among a population (Aamlid & Brownfield, 2019; Jensen et al., 2014). While these data are valuable, there is a significant lack of individual stories and perspectives. It is impossible to obtain a complete sense of one person’s experience through descriptive statistics. College students with physical disabilities have their own views about what obstacles are most challenging or significant, and their own ways of processing and articulating these barriers. Additionally, there is a startling lack of disabled representation among these researchers, though some take measures to ensure that non-disabled researchers are appropriately understanding results (Aamlid & Brownfield, 2019). A shared perspective seems likely to add more insight and representation to research projects on this topic.

Additionally, many colleges are unprepared for students with physical disabilities (Aamlid & Brownfield, 2019; Kotera et al., 2021). As a student at Northern Kentucky University (NKU), I was interested in assessing the current preparedness of this university and ways to move forward. These aims were primarily accomplished through a combination of personal interviews and website reviews.

**Methods**

**Participants**

The interview portion of this research involved four participants. Another potential participant was contacted, but was not

<table>
<thead>
<tr>
<th>Interview Number</th>
<th>Interview Format</th>
<th>Gender</th>
<th>Disability/ies</th>
<th>NKU Student</th>
<th>Graduated</th>
<th>Other Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Phone</td>
<td>Female</td>
<td>Paraplegic</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Phone</td>
<td>Male</td>
<td>Blindess</td>
<td>No</td>
<td>Yes</td>
<td>Currently working in higher education as a professor; interview format chosen based on accessibility (easier to communicate verbally than to read and respond to emails)</td>
</tr>
<tr>
<td>3</td>
<td>In Person</td>
<td>Female</td>
<td>Ehlers-Danlos syndrome; arthritis; auditory processing disorder; memory disorder</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>In Person</td>
<td>Male</td>
<td>Traumatic brain injury (wheelchair and speech device)</td>
<td>No</td>
<td>Yes</td>
<td>Interview format chosen based on accessibility (difficulty in using speech device over the phone)</td>
</tr>
</tbody>
</table>
interviewed due to time constraints and schedule conflicts. Two of the remaining participants were male, and two were female. Two attended NKU, and two attended other colleges in the Northern Kentucky area. A wide range of disabilities were represented. At least one participant’s disabilities included some cognitive components, but all participants had at least one significant physical disability. All participants had either completed their degree, or were on track to graduate. One participant had a personal relationship with me, and the others were contacted through social media or snowball sampling. Participant and interview details are listed in Table 1.

Materials

The qualitative interviews were semi-structured and conducted either in person at an agreed-upon location, or by phone. In two cases, the interview format was chosen based on accessibility needs. For the remaining interviews, the format was agreed upon between myself and the participant based on feasibility and convenience. For structured questions, see Appendix A.

Additional questions were used to obtain further information, clarification, or examples. I intentionally investigated the individual’s personal narrative during the interview process, seeking further explanation for situations or concepts that were mentioned multiple times. Supplemental questions were often designed to uncover the relationship between disability and other aspects of the interviewee’s life, and the issues that were of most importance to the participant.

Procedure

A brief literature review was conducted using resources from NKU’s Steely Library, APA Psychinfo® (https://www.apa.org/pubs/databases/psycinfo) and other databases, and the support of a research librarian on staff at NKU. My personal experience with disability informed the interpretation of these articles. As I read each paper, I journaled and took notes, highlighting significant results, research questions, and connections or applications in my own experience. I searched for common themes, and evaluated both qualitative and quantitative data.

Once themes and omissions in the current research had been assessed, I investigated NKU’s preparedness and resources. I conducted a website review, involving pages directly related to disability and accessibility as well as pages likely to be visited by first-time freshmen (Northern Kentucky University 2022 March -a, Northern Kentucky University 2022 March -b, Northern Kentucky University 2022 March -c). This assessment also involved meetings and interviews with offices relevant to this research. I met virtually with a representative of NKU’s Office for Student Accessibility to obtain information about what support is currently offered, what barriers exist to offering further support, and the prevalence and nature of disability on campus. I also met virtually with the staff member responsible for orientation, tours, and training for those volunteers to see what support measures are already in place and to assess staff willingness to pursue improvements.

Focusing on qualitative data, I then conducted four semi-structured interviews. Detailed notes were taken, and limited self-disclosure was used to build quick rapport, encourage elaboration on certain ideas, and identify common themes. When necessary, accommodations were made for the interviewee’s disability, such as modifying pacing and streamlining questions for a speech device user (Interview 4) or repeating and rephrasing questions to accommodate the memory disorder (Interview 3).

Data Analysis

Data from all sources were combined and integrated. Details from the personal experiences and interviews informed understanding of NKU’s accommodations, and NKU’s system highlighted the specific barriers faced by students. Themes were identified from the data. In response to the themes, offices and key individuals at NKU were contacted both by email and through discussions at the Celebration of Research and Creativity to begin improvements and arrange next steps.

Results

The results from the website review and interviews with offices on NKU’s campus emphasized identification of current resources and barriers for students with disabilities at NKU. My personal experience with visual impairment highlighted issues with the orientation events for incoming freshmen. The environment was overstimulating due to noise and requiring every student to wear the same shirt, and volunteers were unprepared to provide assistance. The majority of the group programming was inaccessible, as my orientation group took stairs multiple times and did not sit in the front rows for presentations, despite my white cane indicating obvious visual impairment. The website review added to these concerns. The Frequently Asked Questions page on NKU’s website for orientation included a number to call in case of disability issues, but it was not made obvious in any other area of the orientation information (Figure 1; Northern Kentucky University 2022 March -c). When registering for tours of campus and similar events, there was not a section in which to describe accommodation needs (Figures 2 and 3; Northern Kentucky University 2022 March -d).
Interviews with representatives from the offices of student accessibility and first year programs shed light on other aspects of accessibility on campus. Since 2019, when I went through orientation, there have been minor improvements. There is now an opportunity to disclose disability when registering for orientation (not tours of campus), but it was combined with a question about dietary needs and did not invite elaboration. Minor training for the volunteers had been added since 2019, but it was led by a staff member from the Office for Student Accessibility, not someone with personal experience. In an interview, a staff member from the Office for Student Accessibility described the office’s routine function. Incoming freshman or new transfer students meet with a representative to outline required accommodations and prepare an accommodations letter. It is the student’s responsibility to request a copy of that letter each semester and send it to their professors. If students return to the office with additional issues, these are addressed. However, the staff member did not mention actively seeking to support students outside of the accommodations letter.

![Screen shot from NKU’s orientation Frequently Asked Questions page taken at the beginning of the research project, highlighting the limited information about accommodations (Northern Kentucky University 2022 March -c).](image1)

When I spoke of potential programs or events that could be designed for students with physical disabilities, the representative explained barriers they have faced in the past. Activities planned for students with physical disabilities were poorly attended.

Both the staff from the Office for Student Accessibility and the orientation staff shared independently about the shame or nervousness that can be experienced by these students in speaking about their disability or attending events intended specifically for disabled students. Events that were held in conjunction with other offices were often better attended, but the few events specific to students with disabilities were not effective.

![Screen shots of NKU’s registration page for tours of campus, which were taken at the beginning of the research project and highlight the absence of any opportunity to disclose disability status or request accommodations (Northern Kentucky University 2022 March -d).](image2)
Since COVID, the office has largely stopped trying to plan events in favor of focusing on accommodation letters. In addition to this information, the interview with the Office for Student Accessibility led to obtaining data about the types and prevalence of disabilities at NKU, presented in Figures 4 and 5.

Notes were taken during interviews with current and past students. Each individual’s story with disability, academics, and other aspects of life was considered when interpreting relevant statements and data. The identified themes listed below were highlighted by each interviewee independently. At least three of four interviewees mentioned each theme, but more often they were emphasized by all four participants. Each theme also resonated with my own experience. Themes, as well as permission to share results, examples, and limited participant data, were verified with the interviewees when appropriate.

A large proportion of examples included in this paper were taken from Interview 3, both because of the participant’s eagerness to have experiences shared, and because this was the only participant currently attending NKU at the time of the research.

Identified themes are as follows: Reactive nature of accommodations (not taking action until specific action is requested), failure of physical accommodations (when the agreed-upon accommodations are not provided or are not adequate), misunderstanding of disability from peers, involuntary or insufficient self-disclosure, social and emotional impact of disability, and stigma associated with physical disability. Further analysis on each theme, including examples and implications, is provided in the discussion section.

## Discussion

### Themes

Each of the emerging themes from the data has significant implications for understanding college students with physical disabilities. The reactive nature of accommodations is especially prevalent at NKU, but interviewees indicated that it is a present issue at other universities as well. Prior to the spring of 2022, NKU did not have tactile plates (a tool used by blind and visually impaired people to safely navigate the curb and street) in the roundabout outside the library. They were installed because blind students on campus expressed the need. While this sort of reactive assistance is vital and productive, it places the burden of accommodation solely on the students with disabilities. Aside from the accommodation letters, the majority of the supports that are in place are because students have directly requested them. Any other programs, accessibility features, or support that may be helpful is not likely to be implemented until students specifically express a need or desire for them.

Another theme that was constant across interviews and resonated with my personal experience was the failure of physical accommodations. While accessibility features are often in place and accommodation letters outline the support that is required, this is not always sufficient. For example, elevators are present on NKU’s campus, but one interviewee shared that a malfunctioning elevator required her to take the stairs for nearly an entire semester. Because of this, she experienced heightened joint pain, tardiness, and embarrassment (Interview 3). In my own experience, depending on classroom layout, being assured front row seating may not equate to the ability to see the whiteboard or presentation screen. While my accommodation letter states that I require auditory explanation of all visual materials, instructors often forget or neglect that aspect of the letter. The presence of accommodations does not ensure their success.

Another major factor for most interviewees was the misunderstanding of disability from peers. Students not impacted by disability frequently have little knowledge of the terms and limitations associated with handicaps. This was reported to result in uncomfortable social interactions, increased loneliness, and decreased attempts to connect with peers outside of classes (Interviews 1 and 3).

![Figure 4. Data on NKU’s student population in regards to disability in 2021-2022. The total enrollment number was obtained from a phone call to the general inquiries line, and the number of students with disabilities was obtained from an interview with the Office for Student Accessibility.](image-url)
In my experience, other students often do not consider the requirements of a visual impairment in relation to social events. A visual impairment makes it difficult to recognize familiar classmates by faces. This can lead to uncomfortable interactions wherein peers are unable to understand my lack of confidence or personal conversation. Interviewees reported similar experiences in relation to other disabilities. When peers do not understand disability, it creates unnecessary and uncomfortable social barriers.

These social misunderstandings, and other situations, frequently lead to involuntary or insufficient self-disclosure. This was a theme that echoed across all interviews, and was initially surprising to me. Upon further reflection, it seems to be a common challenge for people with multiple types of disabilities. It is often required either by social environments or accommodation needs that students disclose specific disability information to both peers and professors. One NKU student explained that though her accommodations letter specifies what support she needs, it does not address the reasoning. Because of this discrepancy, she often finds herself needing to verbally explain her specific diagnosis and day-to-day impacts of her disability to professors to obtain proper understanding and further adjustment (Interview 3). Similarly, another NKU student reported that in every successful social connection they have sustained outside of class, they had to disclose their disability or diagnosis, and this is true in my case as well. When peers were not aware of disability information, it became difficult or impossible to sustain a meaningful relationship. In light of my own experience and interview data, it seems that students with disabilities rarely have the opportunity to keep their disability or diagnosis details private.

In light of these and other challenges, it is clear that disability does not happen in isolation. Every interviewee expressed social and emotional impacts of disability, and this resonated deeply with my personal experience as well. Disability creates social barriers due to misunderstandings, specific social limitations, and isolation. There are also significant emotional impacts of disability. When the malfunctioning elevator required an NKU student to take the stairs for an extended period of time, she experienced tardiness to regular classes, and related embarrassment. She also expressed discomfort with taking the elevator on a regular basis, and wondered what other students thought (Interview 3). Another interviewee described intense depression and suicidal ideation after a traumatic brain injury (Interview 4). Clearly, the impact of physical disability goes beyond physical limitations.
Finally, the stigma associated with disability was a recurring theme. One interviewee, who is diagnosed with both Ehlers-Danlos syndrome (a painful tissue disorder affecting movement) and a memory disorder, described differences between stigma in physical and cognitive disabilities. She expressed that peers accepted her memory disorder as a cognitive disability, lacking a way to prove or disprove its existence. However, she often faces stigma and skepticism over her physical limitations, which are invisible to the average peer despite common expectations related to the visibility of physical limitations (Interview 3). An interviewee with obvious physical limitations said that after his classmates had spent sufficient time with him to adjust to his disability, he made more successful social connections (Interview 4). I have also noticed differences in how strangers and classmates react when I have my white cane (an assistive mobility device) compared to the times I do not bring it. Visible disabilities seem to sometimes be more easily accepted than invisible ones, but regardless of type, all participants expressed some level of experience with stigma.

Implementation at NKU

This project resulted in significant changes at NKU. Faculty and staff in multiple offices were receptive to change during the interview discussions, and my own experience and participants’ contributions highlighted simple, practical implementations. Some of these changes were minor, specifically in relation to orientation. When registering for orientation and tours of campus, there is now a section related to disability. If students confirm during registration that a disability is present, there is an option to share “what [we] need to know about your disability” in preparation for the event. Additional changes included discussion of calling students with disabilities to review needs before events, and making a detailed schedule available to every student ahead of time.

The most significant change at NKU as a result of this research was in relation to the volunteers for orientation. Both my own experience and this research highlighted issues with orientation, many of which stemmed from the volunteers’ lack of knowledge about disability. As a result of this project, I will be preparing and conducting a disability-specific training for these volunteers before orientation for the 2022-2023 school year. This training will be incorporated into the existing schedules for three different groups: Orientation leaders, VictorFest volunteers, and volunteers who lead campus tours. At the time of this writing, the training has not yet occurred, but the focus will be on identifying signals that a student with disabilities in the group is struggling, simple ways to assist, and who to go to for help. The aim of the training will be to eliminate uncertainty and common misunderstandings, and enable volunteers to feel comfortable welcoming students with disabilities alongside others.1 Another aspect of the training will involve a disability pairing activity, adapted with permission from Joni and Friends’ Family Retreat training (www.joniandfriends.org) that will give volunteers firsthand experience with imitations of disability. In this activity, participants will divide into pairs. One member of the pair will be assigned a specific disability, and imitate these restrictions using provided materials. The other member of the pair will gain experience helping someone with a disability-related limitation. A pencil and notepad will be used to imitate a speech impairment, blindfolds will imitate blindness or visual impairment, earplugs will imitate deafness or hearing impairment, oven mitts will imitate mobility impairment in the hands, and wheelchairs will imitate more severe or systemic mobility impairment.

Another immediate benefit of this research is the open discussion that has resulted. The staff member discussing orientation shared difficulties in accessing the direct perspectives of those with disabilities due to privacy issues. According to the interview with the Office for Student Accessibility, there are few or no programs or events directed towards discussion of these issues on campus. As part of the research process, open conversations about disability were held with staff and faculty in positions to enact change. Further, this research was presented at NKU’s Celebration of Student Research and Creativity. The event was open to the public but also well attended by students, faculty, and staff at NKU. By expounding upon the research project and conclusions, I was able to encourage open discussion of disability and engage able-bodied members of the community. While it is impossible to tell what further changes may occur on NKU’s campus in the future, open discussion is a vital step for growth.

Limitations

Despite the invaluable qualitative data and impact of this research on NKU, there are multiple acknowledged limitations of the research, primarily in scope. Very few interviews were conducted. I emphasized personal narratives and individual experiences, which came at a cost of ignoring larger data trends and quantitative tools. I also acknowledge a significant personal bias in this research due to my own disability, and the potential for confirmation bias to impact the results and their interpretation. This, combined with the lack of a permanent record of interviews or independent coders in interpreting the qualitative interview data, lends considerable weight to the question of validity. Therefore, it is difficult or impossible to

1 The orientation training was very successful. Students were engaged during the activity and asked questions. Some students showed an eagerness to move forward with inclusion on campus, offering their own ideas. Positive feedback from both students and staff strengthened this impression. [Comments added after review.]
generalize the current findings. More research will be required to assess external validity and replication.

Future Research

Broader interviews and some quantitative measures can be used to assess whether these results are replicable, and the external validity of the measures. While some interviewees had experience at other universities, broader research will be required to investigate the differences between universities. More specific research could be conducted to assess the effectiveness of programs and supports already in place at these institutions, including NKU. Further research is required to determine the validity of the current results and the effectiveness of the implemented orientation training.

Another significant concept brought up both by interviewees and by an attendee at the Celebration of Student Research and Creativity was the self-disclosure of disability and its impact on subsequent performance. It is well-known in much of psychological literature that the disclosure of mitigating factors such as gender before a math test can impact performance negatively (Kahalon et al., 2018). This effect may be even more pronounced with those who are impacted by disability, as they are often forced to disclose pertinent disability information before attending college and prior to beginning each individual course. This is supported by limited interviewee information and my personal experience, but significantly more research will be required to understand the nature and scope of this effect for students with physical disabilities.

Another topic for further research involves the relationship between stigma and type of disability. Multiple interviews and my own experience highlighted this. However, the specific factors involved (cognitive/physical, invisible/visible, etc.) and exact effects on stigma and perception are unknown.

Conclusion

While research in the area of disabilities is growing, there is still insufficient qualitative data to provide full understanding. This study aimed to better understand the experiences of college students with physical disabilities and the current status of NKU as a provider of support and accommodations. Through interviews, website reviews, and literature reviews, the research has contributed to a greater understanding of the barriers facing students with disabilities, and the multi-faceted nature of disabilities and accommodations. Some changes have already been implemented at NKU as a result of this research, but there is ample room for further growth and research.

References

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


Appendix A

Structured questions used in each interview

“Tell me about your disability. How does it impact your day-to-day life?”

“How does your disability impact your education?”

“What accommodations do you need?”

“Do you feel that your professors and instructors met your needs?”

“What barriers do you face in higher education?”

“Are there specific things that you feel your university does well or poorly in relation to your disability?”

“What do you think is important for others to understand about physical disabilities in college?”