

Araştırma Makalesi

Comparative Analysis of Biopsychosocial Barriers Faced by Disabled and Non-Disabled Individuals in A University Setting: A Qualitative Study

Üniversite Ortamında Engelli ve Engelsiz Bireylerin Karşılaştığı Biyopsikososyal Engellerin Karşılaştırmalı Analizi: Nitel Bir Çalışma

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ÖZ

Amaç: Bu nitel çalışma, engelli ve engelsiz bireylerin üniversite ortamındaki deneyimlerini inceleyerek, bireylerin karşılaştıkları zorlukları ortaya koymak ve daha kapsayıcı uygulamaların gerekliliğini vurgulamayı amaçlamaktadır. **Gereç ve Yöntem:** Çalışmamızda “1. Engelsiz Öğleden Sonra Çayı Etkinliği”nde, 12’si tanıılı, 16’sı tanısız toplam 28 katılımcının görüşleri alındı; ortak ve farklı engeller yarı yapılandırılmış görüşmelerle ortaya kondu. **Sonuçlar:** Engelli bireyler fiziksel erişilebilirlik sorunlarını; engelsiz katılımcılar uyum ve ulaşım kaygılarını ilettiler. İki grup idari personelle iletişim güçlüğü bildirdi. Engelliler akademik hizmetler ve destek birimleriyle kampüs erişilebilirliğinin artırılmasını; engelsizler daha geniş destek ve etkinlik çeşitliliği istedi. **Tartışma:** Çalışma, iki grubun kapsayıcılık için eşsiz yeteneklerini sunma isteğini vurgular. Yükseköğretimde kapsamlı ve kapsayıcı yaklaşımlar kritiktir; uygulandığında çeşitliliği kucaklayan adil, misafirperver öğrenme ortamları yaratır

Anahtar Kelimeler: İletişim engelleri; Engelli bireyler; Eğitim; Psikolojik uyum; Sosyal çevre

ABSTRACT

Purpose: This qualitative study examines the experiences of both disabled and non-disabled individuals within a university setting, illuminating their unique challenges and underscoring the necessity for more inclusive practices. **Material and Methods:** In our study, during the “1st Accessible Afternoon Tea Event” opinions of 28 participants 12 diagnosed, 16 undiagnosed were gathered; semi-structured interviews explored shared and distinct barriers. **Results:** Disabled people cited accessibility issues; nondisabled cited integration and transportation concerns. Both groups reported staff communication difficulties. Disabled urged improved academic services and campus access through support units, nondisabled requested broader support and event diversity. **Conclusion:** The study highlights both groups’ willingness to contribute unique abilities to inclusion. In higher education, comprehensive and inclusive approaches are vital; when adopted, they create fair, welcoming learning environments that embrace diversity

Keywords: Communication barriers; Disabled persons; Education; Psychological adaptation; Social environment

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Education is an ongoing and continuous process that necessitates the involvement of all sectors of society (Belete et al., 2022). Various studies have documented the physical, social, and academic challenges faced by disabled students in higher education settings. For instance, Smith et al. found that students with mobility impairments often encounter significant barriers in navigating university campuses, such as inaccessible buildings and inadequate transportation options. However, this study was limited by its focus on physical barriers, overlooking other critical aspects such as social inclusion and psychological support. (Smith et al., 2021). Parpottas et al. underscored the need for academic support services, personalized learning plans, and accessible materials for students with learning disabilities. While this research provides valuable insights into academic accommodations, it does not address the broader social and psychological challenges faced by these students (Parpottas et al., 2023).

Jones et al. examined the social isolation of disabled students, noting the lack of peer support and faculty understanding. While highlighting social barriers, the study's narrow focus on interactions overlooks the interplay of social, psychological, and physical factors. Our research offers a more comprehensive view by integrating these dimensions (Jones et al., 2021). Recent studies, such as Al-Shaer et al., examined the mental health and quality of life of disabled university students, emphasizing the roles of religiosity and social connectedness. It highlights the need to consider psychological factors in addressing their needs (Al-Shaer et al., 2024). Similarly, Fernández-Batanero et al. discussed the access and participation of disabled students in higher education, stressing the need for institutional support and inclusive policies (Fernández-Batanero et al., 2022).

Moreover, while many studies emphasize inclusive practices, more recent research is needed to address evolving higher education environments. Rodríguez-Correa et al. reviewed assistive technologies for Deaf communication, highlighting advancements in accessibility (Rodríguez-Correa et al., 2023). Tam et al. explored physical accessibility on Chinese university campuses, offering a global perspective (Chipchase et al.; Tam et al., 2022).

Despite valuable contributions, research remains scarce on the combined physical, social, and psychological barriers faced by disabled individuals in higher education. Our study fills this gap using a biopsychosocial model, which offers a holistic view of disability. This framework emphasizes the need for comprehensive support systems, beyond physical

accommodations, including psychological services and social inclusivity. Although various studies have addressed the challenges faced by disabled individuals in higher education, limited attention has been paid to how these experiences compare with those of non-disabled individuals within the same environment. This study seeks to explore this gap by focusing on the lived experiences of both groups in a university setting. It is based on the assumption that while disabled and non-disabled individuals encounter different types of barriers, they may also share common difficulties—particularly in areas such as communication and institutional support. Gaining a deeper understanding of these experiences can help shape more inclusive and responsive university policies.

MATERIALS AND METHODS

Research Design

The research was conducted using a qualitative method, using semi-structured interviews as the primary data collection method.

Participants

Participants were selected using purposive sampling, a common method in qualitative research that allows for the intentional selection of individuals based on their relevance to the research questions. In qualitative research, sample size is not predetermined but is guided by the principle of data saturation. This approach allows researchers to continue collecting data until no new themes emerge (Patton, 2002). A total of 27 students and 13 staff members from X University, all diagnosed with various impairments, were invited to take part in the '1st Barrier-Free Afternoon Tea Event,' where the study took place. Among those invited, 12 individuals with disabilities voluntarily agreed to participate, along with 16 participants without disabilities. Participants were selected from among students and staff members affiliated with X University, all of whom were over the age of 18. Inclusion was based on their willingness to voluntarily share their personal experiences related to university life. Those who were not part of the university community or who declined to participate were not included in the study.

Data Collection

Data for the study were gathered through semi-structured interviews, each lasting between 45 and 60 minutes. The interviews took place in quiet, private rooms on campus to provide a comfortable setting and to ensure confidentiality. All conversations were held one-on-one; group interviews or focus group discussions were not used. Before each session, participants were informed about the process and asked for their consent

to audio-record the interviews.

The interviews were carried out by a team of three researchers, each with previous experience in qualitative interviewing and research related to disability and higher education. All team members were familiar with ethical research practices and had worked with similar participant groups in previous studies. Interview questions were developed by reviewing both the academic literature on disability and inclusion and the topics frequently discussed in public forums such as social media, blogs, and news coverage.

Data Analysis

Data were analyzed using thematic analysis. The analysis followed the six-phase framework of thematic analysis as described by Braun and Clarke, which includes familiarization with the data, coding, theme development, review, definition, and final write-up (Braun & Clarke, 2006). All coding and theme development processes were conducted manually by the researchers, without the use of computer-assisted qualitative data analysis software. These codes were later grouped under broader themes that reflected the shared and divergent experiences of participants. All data were analyzed manually without the use of qualitative data analysis software. To ensure the reliability of the findings,

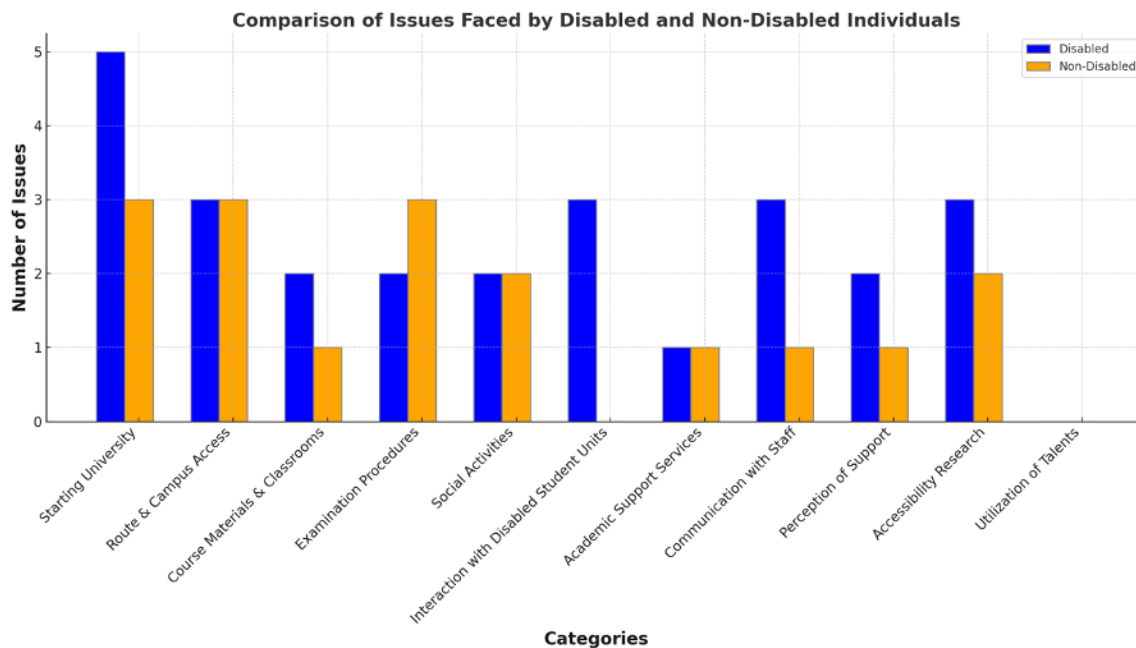
multiple researchers independently reviewed the data. Any discrepancies in coding were resolved through discussion until consensus was reached. To enhance external validity, direct quotations from participants were included to illustrate and support the identified themes.

RESULTS

This study examined the physical, psychological, and social challenges faced by disabled and non-disabled students and staff at Çankırı Karatekin University. Results showed significant disparities in difficulties experienced by disabled individuals compared to non-disabled ones.

The bar chart in Figure 1 visually compares the challenges faced by disabled and non-disabled individuals in eleven key areas of university life. These categories encompass the initiation of university studies, campus route and access, the acquisition of course materials and classroom environments, examination procedures, participation in social activities, interactions with disabled student units, the adequacy of academic support services, communication with administrative and academic personnel, the perceived support from the university, the efficacy of accessibility research, and the utilization of unique talents.

Figure 1. Comparative Analysis of University Life Challenges: Disabled vs. Non-Disabled Individuals



This study includes 28 participants aged 20 to 52, with an average age of 30. The group comprises 17 females and 11 males, and most are single (n=19), with nine married. The group consists of both university students and staff,

including second- and third-year students, and 12 staff members. Of the participants, 12 have disabilities (orthopedic, visual, hearing impairments, and neurological disorders like multiple sclerosis), while 16 do

not. This demographic overview highlights the varied backgrounds of participants. The findings reveal both shared and distinct university experiences of disabled and non-disabled individuals, offering valuable insights for improving policies, support services, and campus

infrastructure (Table 1). The qualitative results for each of the key topics addressed in the interviews are summarized below, highlighting the perspectives of participants with and without disabilities for each area.

Table 1. Comparative Summary of Main Themes and Subthemes for Disabled and Non-Disabled Participants

Main Theme	Subthemes	Disabled Participants	Non-Disabled Participants
University Adaptation	Access challenges, academic difficulties, social adaptation	Difficulties with physical access and course comprehension (e.g. hearing impairment)	Emotional difficulty adapting to new environment, transport issues
Campus Access & Transportation	Transportation, road infrastructure, safety	Shuttle is helpful; issues with sidewalks and navigation	Overcrowded buses, inconsistent schedules, poor road conditions
Academic Environment	Course materials, classroom access	Elevator restrictions, difficulty accessing classrooms	General satisfaction; issues with labs and note availability
Examination Experience	Exam scheduling, difficulty level	Short midterm week was a concern	Complaints about exam difficulty and online exam process
Social Participation	Event attendance, participation barriers	Active but limited due to physical discomfort	Low participation due to academic workload and lack of information
Disabled Student Unit Interaction	Awareness, support provided	Helped overcome social phobia, but lack of awareness	Little to no knowledge or experience with the unit
Academic Support Services	Sufficiency, psychological support	Mixed experiences; desire for psychological/social support	Mostly adequate but constrained; noted internet access
Communication with University Staff	Communication barriers, bureaucracy	Hearing-related challenges, registration issues	Issues with student affairs; smooth with professors
Perceived Institutional Support	University's responsiveness	Mixed views; some helpful responses, some lacking	Generally low perception; call for more support
Accessibility Research & Policy	Physical, technological accessibility	Efforts appreciated but insufficient; system interruptions	Website & infrastructure criticism
Personal Strengths to Help Others	Communication, listening, skills	Experience-based empathy, communication and technical skills	Communication, listening, planning skills

1. What did you experience during the process of starting university? What were the challenges? What was easy?

Participants were asked about their initial university experiences, including challenges they faced and things that were easy during the transition. For individuals with

disabilities, the adjustment period was marked by challenges in physical accessibility, educational resource access, and support services. Many encountered infrastructural barriers on campus – for example, one wheelchair user noted that some buildings and sidewalks were “not always built in accordance with special

requirements," making it difficult to move around independently. Hearing-impaired students similarly reported trouble following lectures due to a lack of accommodations (e.g. absence of sign language interpretation or captioning), indicating limited accessibility of instructional materials. In addition, insufficient support staff was a concern; the lack of personnel left existing staff overextended and "experiencing fatigue and boredom," suggesting that more robust support services were needed to assist disabled students in their first year. In contrast, individuals without disabilities emphasized social adaptation and logistical challenges rather than physical barriers. Many described struggling with being away from family and adapting to a new social environment, underscoring difficulties in social and academic adjustment during the first year. Transportation to campus emerged as another common challenge – participants from out of town found commuting difficult due to long distances or limited transit options near the university. On a positive note, some non-disabled students appreciated the ease of certain technical and administrative processes. For instance, the online registration system at the start of the term was described as straightforward and convenient, which helped make the enrollment process smoother. Overall, while students with disabilities mainly faced concrete accessibility obstacles and a lack of adequate support, their non-disabled peers were more concerned with adjusting socially to campus life and managing practical issues like transportation.

2. What is the condition of the route leading to the university campus? Do you find access and transit to be convenient? If a task is not easy, what are the specific difficulties that make it difficult?

Disabled individuals had varied experiences with campus transit. Some found it straightforward thanks to shuttle services—one noted, "I can come with the shuttle; it's very easy." However, others encountered significant on-campus difficulties; for example, a participant remarked, "It is difficult to walk on campus; the facilities are not good, and the sidewalks are of inconsistent height," which underscored the inadequacy of campus walkways. Another who travels by public bus stated having "no difficulties," indicating that experiences differ based on the mode of transport. Overall, the key themes for disabled individuals include improved Accessibility (due to the shuttle service), On-Campus Accessibility Issues (fragile sidewalks and inadequate pedestrian routes), and Challenges in Logistics and Communication (e.g., delayed transportation vehicles and insufficient information at entry points). Non-disabled participants largely

highlighted issues with transportation infrastructure. One student chooses to travel by bus due to limited options amid excessive congestion—"I choose to travel by bus because there are limited transportation options available due to the excessive congestion," they explained. Another uses a private car but noted that "the road is in a deteriorated state," emphasizing poor road conditions. Additionally, inconsistent public transit schedules were mentioned: "The inconsistent bus schedules lead to prolonged waiting periods," one participant observed. Accordingly, the main themes for non-disabled individuals are Issues with Public Transportation (overcrowded buses and irregular timetables), Infrastructure Challenges (poor road conditions and the campus's remote location from the city center), and Safety Concerns (hazards like slipping on icy surfaces in cold weather). In summary, disabled individuals primarily face on-campus accessibility limitations (such as uneven sidewalks) and transportation delays. In contrast, non-disabled individuals tend to emphasize problems like overcrowded buses and poorly maintained roads in their commuting experience.

3. How would you characterize your encounters with obtaining course materials and the physical setting of the classroom?

Most disabled participants reported no significant obstacles in accessing course materials or classrooms. As one respondent explained, "There is no obstacle to access," and another noted that "as long as the problem was raised, there was always a solution." These statements suggest that when issues arose, they were promptly addressed, resulting in overall adequate accessibility. However, not all experiences were barrier-free. For instance, one disabled individual lamented, "I'm not allowed to use the elevator, so I can't access the classroom environment," highlighting a physical access barrier. This indicates that certain institutional policies (such as restricted elevator use) can still hinder entry for disabled students despite other accommodations. Non-disabled participants generally expressed satisfaction with their ability to obtain course materials and navigate classrooms, often describing the situation as "adequate and very good." Fundamental access to materials and the physical classroom setting was not a major issue for them. Nonetheless, some infrastructure and resource shortcomings were identified. For example, one participant suggested "the number of laboratories can be increased," pointing to a need for more lab facilities, and another mentioned "a problem with duplicating course notes on campus," indicating difficulties in obtaining or reproducing lecture notes. These comments show that while basic access is satisfactory, there is room for

improvement in academic resources and facilities. In contrast to non-disabled individuals who highlight broader infrastructure and resource issues, disabled individuals tend to emphasize physical access restrictions (such as elevator usage policies). In other words, disabled students focus on overcoming tangible barriers to entering and using learning spaces, whereas their non-disabled peers are more concerned with enhancing educational infrastructure and materials.

4. Are you encountering any challenges or obstacles in the examination procedures?

When asked about difficulties in examination procedures, disabled students generally reported minimal problems. Many indicated that they were satisfied with the exam process and did not face significant obstacles. For instance, one disabled participant explained, "I didn't experience any difficulties during the exam period." The only notable concern among this group was the limited duration of the midterm exam week. Some students felt that the midterm period was too short, which made it challenging to complete all exams comfortably within the allotted time. Non-disabled students, in contrast, identified more pronounced challenges with exams. A common issue was the high difficulty and intensity of the exams themselves. Several participants observed that certain instructors make the exams extremely difficult, and they found the midterm week overwhelming due to a busy schedule with inadequate breaks between exams. Additionally, while many non-disabled respondents did not report major issues with in-person exams, the shift to online exams introduced its own difficulties. One student noted that "the process of taking online exams was difficult," pointing to technical or logistical obstacles in the remote exam setting. Overall, disabled students emphasized concerns about exam timing (the short midterm week), whereas non-disabled students were more affected by the rigorous nature of exams and the strains of the exam schedule – especially under online examination conditions.

5. Does your university offer social activities to facilitate student interactions? Are you engaged in these activities? If your response is negative, what prevents you from participating, and what obstacles do you encounter?

Participants were asked whether their university provides social activities to facilitate student interactions, whether they take part in such activities, and if not, what prevents their participation. The answers revealed distinct patterns between students with disabilities and those without. For students with disabilities, a thematic analysis identified two main themes: active participation and access challenges. These individuals generally expressed

a willingness to be actively involved in the social opportunities offered. For example, one disabled student noted, "I am engaging in active participation," demonstrating enthusiasm for involvement. At the same time, many described practical difficulties that hindered full engagement. One participant reported attending conference lectures but having to leave after about an hour due to the inability to remain seated for an extended period. This illustrates the presence of access challenges: in essence, while students with disabilities are eager to participate, health-related constraints can limit their sustained involvement in social activities.

In contrast, students without disabilities frequently cited time constraints and limited awareness of events as reasons for low participation, corresponding to the themes of effective time management and prioritization and lack of information. A number of these participants indicated that intensive academic commitments left little time for extracurricular events. As one student put it, "I feel like it would be a waste of time if I attended because my classes are so intense," suggesting that academic priorities often overshadow social engagement. Additionally, some students were simply unaware of most university social activities outside their own departments. One non-disabled participant remarked, "I don't think there are any social activities, but I would participate if it was related to my department," highlighting this lack of information about general campus events. For these students, the combination of a heavy workload and insufficient knowledge of available activities emerged as the main barrier to participation. Thus, whereas students with disabilities show willingness to engage but are sometimes limited by physical challenges, non-disabled students often refrain from participating due to competing academic priorities and not knowing about the opportunities available.

6. What are your experiences interacting with disabled student units?

Disabled participants shared a range of experiences with their university's disabled student units. One student noted, "I overcame my social phobia with the support of the unit," highlighting that the unit's support had a profoundly positive impact on their personal growth. Another admitted, "I just found out. When you asked, there was no publicity," indicating that they were not aware of the unit's existence until prompted, which points to a lack of information and promotion. A third student wondered, "Will the disabled student unit be able to solve a problem? Then it will be clear," expressing some uncertainty about the unit's effectiveness. From these responses, several key themes emerge regarding disabled individuals' interactions with the unit. Support

and Recovery is a prominent theme, as the disabled student unit was credited with helping individuals overcome challenges like social phobia, leading to meaningful improvements in their well-being. Insufficient Information also stands out — many participants were barely aware of the unit due to poor publicity and outreach, suggesting that the existence and services of the unit are not well-publicized. Additionally, Interaction Experiences were generally positive, but there is an underlying sentiment that some aspects could be improved; even though students value their interactions with the unit, they feel there is room for enhancement in how the unit operates or supports them.

In contrast, non-disabled participants largely reported no direct experience with disabled student units. For example, one respondent stated, “They didn’t have any experience,” and another confessed, “I don’t know of any such unit.” These brief answers reveal that many non-disabled students have little to no interaction with the disabled student unit and are often unaware of its very existence on campus. Two main themes can be identified from the non-disabled individuals’ perspectives. The first is Insufficient Interaction: non-disabled students typically have not engaged with the disabled student units at all. This lack of engagement could be due to limited opportunities or a lack of encouragement to interact with these units. The second theme is Lack of Unit Awareness. The fact that respondents did not even know such a unit exists suggests that the university has not effectively communicated or promoted the presence and purpose of the disabled student unit beyond the disabled community. In short, for non-disabled individuals, the disabled student unit is virtually invisible in their university experience.

Disabled individuals acknowledge some benefits from these units but report a widespread lack of awareness. Non-disabled individuals also note limited interaction and are generally unaware of their existence

7. What are your perspectives on the academic support services provided to you?

Participants with disabilities often expressed concerns about the adequacy of academic support services. Many felt that these services were simply “inadequate.” One individual even stated, “I do not require assistance from academic support services,” suggesting that the available support was either not utilized or not meeting their specific needs. At the same time, there were instances of positive feedback; for example, a participant mentioned, “I require assistance with my psychological and social well-being. The professors are empathetic.” This highlights that some disabled individuals did experience understanding and support from faculty regarding

personal well-being. From these responses, two primary themes emerged. Insufficiency of Support Services was a dominant theme, as many disabled participants reported a lack of adequate academic support for their needs. Alongside this, a theme of Positive Experiences also appeared, indicating that despite general insufficiencies, some participants had supportive interactions with professors and felt their academic needs were addressed with empathy. Participants without disabilities generally conveyed that academic support services were adequate, yet they also pointed out certain limitations. For instance, one respondent remarked that “it has restrictions,” and another explained, “We are unable to interfere with the course’s content,” reflecting a perception that while support exists, there are clear boundaries to its scope. Additionally, aspects of technological and online support were noted. One participant observed that “Internet connectivity is adequate,” implying satisfaction with the online resources and infrastructure provided. Overall, two key themes were identified in the non-disabled group’s responses. The first is Adequacy with Limitations: academic assistance was viewed as generally satisfactory, although accompanied by some constraints and an inability to go beyond set parameters (such as altering course content). The second theme is Online Access and Opportunities: respondents acknowledged the sufficiency of online resources and connectivity for academic support, while also hinting that further assistance or improvements would be beneficial to enhance their learning experience.

Disabled individuals commonly reported a lack or insufficiency of these services, whereas non-disabled individuals predominantly discussed their views on the adequacy and limitations of the services.

8. Do you encounter difficulties in effectively connecting with administrative or academic personnel? What are the specific issues that you are currently encountering?

Disabled respondents often reported difficulty exchanging information with university personnel due to their impairments. For instance, one participant noted, “Yes, I couldn’t understand phone conversations because I had hearing loss.” Such auditory limitations make it hard to effectively communicate over the phone and in person. Many individuals also mentioned communication problems with staff and students, indicating instances of misunderstanding or not being sufficiently understood by others in the academic environment. In addition to communication barriers, disabled participants faced challenges with certain administrative processes. A few described encountering “minor problems with course registrations from time to time,” suggesting that

navigating bureaucratic procedures (like registering for courses or dealing with paperwork) was occasionally problematic. These hurdles imply a need for more accessible or supportive administrative systems for disabled individuals.

Non-disabled respondents generally did not face significant obstacles in connecting with academic or administrative staff. One person explained, "I don't have any problems with communication; I can reach you," reflecting an overall ease of interaction with lecturers and university personnel. In normal circumstances, they found communication with staff to be straightforward and unhindered. Challenges with student affairs: However, some non-disabled individuals did point out difficulties with specific departments. For example, a student shared, "It's easy to communicate with professors, but difficult to communicate with student affairs." This indicates that while academic communication was smooth, dealing with administrative offices like student affairs could be frustrating or less responsive. The variability in communication effectiveness across departments was a notable theme. Issues in particular domains: A few non-disabled respondents mentioned challenges unrelated to person-to-person communication but still affecting their overall experience. One common gripe was about campus security procedures: "Security checks at the university entrance take too long." This highlights problems in specific physical or logistical domains (such as lengthy security screenings at entrances) that, while not communication issues per se, still impede their daily interactions and cause inconvenience.

Disabled individuals frequently face challenges in communication and navigating bureaucratic systems, whereas non-disabled individuals typically report fewer communication issues but may face difficulties in specific physical domains.

9. Are you experiencing a sense of support from the university? What is your level of familiarity with this?

In response to this question, disabled participants described mixed experiences regarding the support provided by the university, and three main themes emerged from their answers. First, some disabled individuals acknowledged receiving direct support and assistance from the university, most notably in the form of a transportation service. For example, one participant affirmed that "yes, transportation assistance is provided. The service is free," highlighting the existence of tangible aid for students with disabilities. Second, effective problem solving and correction of issues was another theme identified in the disabled group's responses.

Participants noted that when problems with support services arose, the university took action to address them. One respondent who uses crutches recounted having an initial problem with the shuttle service, which "they fixed... by reporting it to the rectorate," indicating that the administration was responsive in resolving the issue. However, despite these positive aspects, a third prominent theme was an insufficient overall sense of assistance. Many disabled participants admitted that they did not truly feel supported by the university or were not well-informed about available help. For instance, one individual confessed, "I don't feel it. I don't know," suggesting a lack of awareness and a prevailing sentiment that the support from the university remains inadequate or not fully accessible to those who need it.

The non-disabled participants' feedback on this matter also revealed contrasting yet generally critical perspectives about university support. A number of non-disabled individuals reported an insufficient perception of support, indicating that they did not feel any notable assistance from the university. One participant stated plainly, "No, I don't feel it," to describe the absence of a felt support system. On the other hand, some non-disabled participants acknowledged and appreciated the support that does exist, demonstrating a favorable perception of the assistance provided in certain areas. For example, a respondent observed, "I feel supported. The things that are done are appreciated," which shows that there are instances where university efforts are recognized and valued. Nonetheless, even among those with positive feedback, there was a clear call for increased support. Many non-disabled respondents argued that the university should offer more help and expand its support services. This sentiment is exemplified by one participant's comment that "the university needs to support more," underscoring a widespread expectation for the institution to do better in supporting its students.

Disabled individuals mention some helpful support but feel it is largely insufficient. Non-disabled individuals also express dissatisfaction and emphasize the need for more assistance

10. What is your opinion regarding the research conducted on the topic of accessibility at the university?

Disabled participants acknowledged the university's ongoing efforts in accessibility research while pointing out significant shortcomings, encapsulating a theme of Studies and Deficiencies. One participant remarked, "Despite certain deficiencies, the university administration is actively striving to mitigate impediments," capturing this mixed sentiment of appreciation and critique. Physical barriers in the campus

environment were another common concern (Physical Access Difficulties); for example, a student recounted, "I had challenges due to the absence of an elevator, which resulted in the relocation of my classroom to the ground floor." This anecdote highlights how infrastructural limitations necessitated reactive measures to accommodate disabled students. Additionally, participants noted the introduction of technological initiatives aimed at improving accessibility, yet these were not fully realized (Technological Opportunities). As one interviewee explained, "I appreciate the efforts made to improve accessibility; however, the voice navigation system is currently suspended," illustrating that while innovative solutions have been put forward, their inconsistent implementation can hinder their effectiveness.

Non-disabled participants also provided their viewpoints on the university's accessibility initiatives, often stressing an overall Accessibility Deficiency. One student bluntly stated, "Our university lacks sufficient accessibility," reflecting a common belief that current measures are inadequate. However, not all respondents shared this negative assessment; some expressed a Perception of Sufficiency, believing that existing accessibility provisions were adequate. For instance, another student countered, "I think it's enough," indicating a divide in how the extent of accessibility efforts is perceived. Beyond these general impressions, respondents identified specific shortcomings in both digital and physical domains (Issues with Web Accessibility and Physical Obstacles). As one individual observed, "The website is insufficient, and the turnstile is an inefficient use of time," underscoring that inaccessible online platforms and inconvenient physical infrastructure can impede the overall user experience.

Both groups offer different views on the university's accessibility efforts. Disabled individuals highlight ongoing barriers and some progress, while non-disabled individuals provide more critical perspectives.

11. How can you utilize your distinctive talents and attributes to assist others?

Four major themes were identified in disabled individuals' answers: Communication Skills, Listening Ability, Practical Knowledge and Skills, and Organization and Planning. The first two of these themes reflect strong interpersonal strengths. Participants frequently mentioned leveraging communication abilities to support others – for example, one disabled respondent stated, "I possess the ability to assist individuals through my proficient communication skills," emphasizing how clear expression can be used to help people. They likewise underscored their capacity for empathetic listening as a

means of understanding and addressing others' problems. As another individual explained, "I possess excellent listening skills and have the ability to assist individuals in comprehending their issues," highlighting that being attentive and understanding is a crucial way to provide support. Beyond these interpersonal skills, disabled participants also highlighted using personal expertise and know-how to assist those around them. Some described offering guidance informed by hands-on experience or specialized talents – for instance, a participant noted they could draw on practical knowledge in areas like computer use or artistic craftsmanship to help others solve problems. Additionally, organizational talents were mentioned: respondents indicated that helping to plan events or manage daily tasks was another way they could be of service. This emphasis on coordination and planning ability shows that many disabled individuals view their organizational strengths as valuable tools for assisting others. In sum, disabled participants identified a broad range of personal attributes – from communication and listening to practical expertise and planning – as means to contribute positively to other people's lives in an everyday, meaningful way. Among non-disabled individuals, analysis of the responses revealed a closely corresponding set of themes, mirroring those of the disabled group.

Non-disabled individuals likewise emphasized Communication Skills, Listening Proficiency, Practical Knowledge and Skills, and Organization and Planning as their main avenues for helping others. Communication emerged again as a central theme: one non-disabled respondent noted plainly, "I can help others with my communication skills." This simple statement underscores the importance of clear and effective communication in providing support, indicating that the ability to convey information or encouragement is seen as fundamental. Equally prominent was the theme of being a good listener. For example, a participant remarked, "I am a good listener and can help understand people's problems," suggesting that attentive listening and empathy enable them to comprehend issues and offer appropriate help. In addition to these interpersonal qualities, non-disabled respondents pointed to sharing their practical expertise as a way to assist others. One individual explained that "I can give advice with my practical knowledge or skills," implying that they use their know-how from specific domains to guide or mentor people in need. Furthermore, organizational and planning abilities were cited as valuable; participants mentioned helping to coordinate daily activities or plan events as an important form of support they could

provide to friends, family, or the community. Such responses indicate that non-disabled individuals also see the act of organizing and planning as a significant contribution to others' well-being. Overall, the themes expressed by non-disabled participants align closely with those of disabled participants.

Both groups present varied perspectives on how they can help others using their unique talents. Both disabled and non-disabled individuals highlight their abilities in communication, listening, and practical skills.

DISCUSSION

The findings of this research confirm the assumption that individuals with and without disabilities encounter both unique and shared challenges in university life. These challenges are not confined to a single institution, but rather reflect broader structural issues within higher education systems. Disabled individuals faced obstacles in accessing physical infrastructure, impacting their academic and social participation. Students with academic impairments encountered challenges due to insufficient specialized support and lack of staff empathy. These students experienced social isolation due to a lack of inclusiveness in university activities. The study highlighted gaps between the university's disability policies and their implementation, revealing deficiencies in meeting disabled individuals' needs. Immediate changes in policies and practices are required to promote inclusivity and support for disabled members of the academic community.

The study offers new insights into the challenges disabled individuals face in university settings, confirming known issues and revealing new ones. For example, one disabled student struggled to navigate the campus due to the lack of wheelchair ramps and elevators, hindering their ability to attend classes and participate in activities. Another student felt excluded from group projects and social events due to peers' lack of understanding or willingness to accommodate their needs. These examples highlight the tangible barriers disabled individuals face and promote empathy for their experiences. The physical and social barriers that students face at universities are consistent with those that Ferreira Silva reported in broader research that examines comparable issues in various university environments (Ferreira Silva et al., 2022). Our study reveals the complex link between physical challenges and social and psychological factors, leading to feelings of exclusion and mental health issues among disabled students. While some argue that infrastructure and sensitization programs are costly and time-consuming, research shows the long-term benefits of inclusivity far outweigh the initial investment (Bundy

et al., 2018; Heinicke-Motsch & Sygall, 2004). Universities that prioritize inclusivity and provide support to disabled individuals often see improved academic performance, higher retention rates, and a more diverse and inclusive campus community (Chiwandire & Vincent, 2019; Salmi & D'Addio, 2021). Additionally, there are various funding opportunities and resources available to universities to support the implementation of these changes (Chiwandire & Vincent, 2019).

Research has shown that disabled individuals who do not receive adequate specialized support are more likely to experience heightened levels of stress, anxiety, and depression (Hsieh et al., 2020; Lal et al., 2022). The lack of understanding and empathy from staff members and peers can further contribute to social isolation and feelings of loneliness (Prizeman et al., 2023). These negative experiences significantly impact disabled students' mental health, well-being, academic performance, and retention rates. Addressing these issues is crucial to promoting a more inclusive and supportive educational environment.

Our findings support the call for a comprehensive approach to higher education, emphasizing the need for changes in infrastructure, policy, and social attitudes. Researchers argue that true inclusivity requires not only physical accessibility but also shifts in social attitudes and institutional rules (Fenney & Snell, 2011; Wolbring & Escobedo, 2023; Zallio & Clarkson, 2021). This aligns with recent academic discussions that emphasize a comprehensive understanding of discrimination, considering the interaction between environment, societal beliefs, and personal experiences. This study advances knowledge by detailing the barriers faced by individuals with special needs in academic settings, regardless of disability diagnosis.

The findings of this study have both theoretical and practical implications for enhancing the university experiences of disabled individuals. Theoretically, it reinforces the biopsychosocial model, which emphasizes a holistic approach to disability, addressing biological, psychological, and social dimensions. Practically, the study calls for universities to prioritize accessible infrastructure and comprehensive support systems, including academic accommodations, psychological services, and social inclusivity programs. Regular staff training and awareness campaigns can promote empathy and effective communication, ensuring that inclusive policies are implemented, monitored, and evaluated to create a truly inclusive educational environment.

This study has several limitations that should be acknowledged, including its geographical scope, as it was conducted at a single university, potentially limiting the

generalizability of the findings to other institutions with different resources and contexts. Additionally, the relatively small sample size, despite its diversity, may not fully capture the wide range of experiences among disabled and non-disabled individuals. Furthermore, the reliance on self-reported data through interviews may introduce response bias, as participants might present socially desirable responses.

This study revealed that both disabled and non-disabled individuals experience distinct yet intersecting challenges within the university environment. The findings point to the need for more inclusive practices that go beyond physical accessibility and address social and psychological barriers as well. In light of these results, several practical steps can be recommended: universities should review and improve campus infrastructure, ensure that disability support units are visible and function effectively, and provide regular training for staff to strengthen communication and empathy. Moreover, increasing the availability and accessibility of social activities and creating feedback systems that include diverse voices in institutional decisions would contribute meaningfully to building a more inclusive academic community.

Ethical Considerations

Ethical approval for the research was received from Çankırı Karatekin University Ethics Committee (unique decision code: 4be893c679d4404f). Participants gave written consent after being informed of the study's purpose, their rights, and the voluntary nature of participation. Confidentiality and anonymity were ensured by using participant codes and removing identifying information.

Authors' Contribution

ICS, CT: Concept/idea development, study design, project management, data collection/processing, data analysis/interpretation, literature review, case provision, facilities/equipment provision, writing, critical revision; TA, FS, AK: Concept/idea development, study design, project management, data collection/processing, data analysis/interpretation, literature review, case provision, facilities/equipment provision, critical revision; CT, NS, MGY, OO: Study design, project management, case provision, facilities/equipment provision, critical revision.

Conflict of Interest

There are no conflicts of interest to declare.

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