

Identifying Barriers to Library Access and Inclusion for Students with Disabilities

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Abstract

Purpose: This study aimed to examine the current library resources and facilities for students with disabilities (SWDs) and to identify the obstacles they face in accessing library services at the University of Peshawar. The study focused on both physical accessibility and the adequacy of library services.

Research Design/Methodology: A descriptive survey research design was employed. The study population included SWDs and library professionals who interact with them regularly. Stratified proportionate random sampling was used to select SWDs from different programs (BS & MS/M.Phil.), while a census approach was applied for library staff. Data were collected on physical facilities, assistive technologies, accessibility of information resources, and staff interactions with SWDs.

Findings: Results revealed insufficient library facilities, including lack of ramps, elevators, accessible washrooms, braille and talking books, and telecommunication aids. Tables, chairs, and signage were partially suitable, but circulation desks and shelves were difficult to access. Library staff were polite, empathetic, and provided supportive interactions with SWDs; however, they lacked knowledge of assistive technologies and specialized services. The study emphasizes the importance of staff training, improved infrastructure, and availability of adaptive technologies to enhance library access and inclusion for SWDs.

Originality/Value: The study addresses the scarcity of research on inclusive library services in Pakistan, providing insights into the current state of accessibility for SWDs in developing nations and highlighting areas for improvement.

Keywords: Students with disabilities, library accessibility, assistive technology, inclusive library services.

Introduction

The major role of a library is to obtain, manage, preserve and provide information to its users. Modern libraries provide information resources and services to support teaching, learning, and research. An academic library is a key source of knowledge for both teachers and students, enabling them to access the information they need without discrimination based on ethnicity, race, religion, gender, age, or disability. This purpose includes providing resources and services to persons with disabilities (PWDs). Physical, mental, or partial disabilities are societal realities and are defined as “a barrier to the human ability to perform an activity naturally” (Ayoubi et al., 2018). Studies show that low health facilities, lack of laws, wars, and aging populations contribute to higher numbers of persons with disabilities in developing countries (Vesper, 2019; Williams-Ilemobola et al., 2021). WHO (2011) defines disability as “an umbrella term for impairments, activity limitations, and participation restrictions”.

Higher education institutions admit students from varied backgrounds, including students with disabilities (SWDs), creating a challenge for teachers and libraries to ensure inclusion. SWDs at the University of Peshawar face barriers accessing library resources due to scarcity of accessible materials and lack of awareness among library staff (Sanchez-Diaz & Morgado, 2022). Many students with

disabilities feel isolated and excluded from academic resources, affecting their educational experience (Williams & Martin, 2019; Smith & Thompson, 2020). Equal access to libraries is not always easy for SWDs, as libraries often lack assistive technologies, accessible facilities, and trained staff (Demirelli & Tuna, 2017; Stilwell & Mazinge, 2013; Onsinyo, 2018).

People with special needs in Pakistan are among the most vulnerable and marginalized. Despite constitutional guarantees, they face problems accessing information and library services, including inaccessible buildings, lack of assistive technologies, and insufficient support from staff (Smith & Thompson, 2020; Ahmed Ullah, 2021). These barriers create feelings of isolation, which adversely affect academic achievements (Small et al., 2015; Williams & Martin, 2019). Many libraries in Pakistan are ill-prepared to serve SWDs due to lack of appropriate tools, protocols, and trained staff, compromising their right to equitable access to education (Government of Pakistan, 2018).

This study aims to examine the obstacles faced by SWDs in accessing library services at the University of Peshawar and to provide recommendations for improving accessibility and creating a more inclusive library environment that addresses the educational and social needs of all students.

Research Objectives

- To identify the challenges students with disabilities experience when trying to access library services at the University of Peshawar.
- To evaluate the adequacy of the library's existing resources and facilities for students with disabilities.
- To assess the perceptions and attitudes of library staff towards students with disabilities, and how these influence their interactions and overall inclusion.

Literature Review

Persons with disabilities can be found everywhere around the world. Persons with disabilities (PWDs) have considerable long-term negative effects on ones' capacity to perform routine activities. In Pakistan, as per Human Rights Watch, the exact number of PWDs is not known however, there are around 3.3 million persons with disabilities in the country (Ministry of Human Rights, Government of Pakistan, 2020). Pakistani parliament on September 16, 2020 passed a disability law with the intention to curb discrimination against PWDs. The law covered political participation of PWDs, equal rights in education and jobs, equality before the law, ease of access and mobility, and protection from violent, abusive, intolerant and discriminatory behavior. Pakistan's Supreme Court directed the government machinery to take essential measures for equal participation of PWDs in the society. The court took this decision in response to a petition from a person with disability who was deprived of a job as a school teacher in the city of Multan (Daily Arab News, September 16, 2020). Pakistan is a signatory of the UN Convention on the Rights of Persons with Disabilities (United Nations 2020). The Convention's Article number 24 necessitates all the signatories to guarantee inclusion of PWDs at all educational levels, including higher education and make available sufficient accommodations for them.

PWDs need distinct library services to limit their obvious inhibitions in the usage and exploitation of the information contents of the library. That's why libraries for PWDs are established in several countries of the world to provide services to less privileged in the society. PWDs need to information in the same way as normal persons require. They need varied information for their self-satisfaction, education, entertainment, and research in a way which are tailored to their physical needs. Library services for persons with disabilities have been defined by many as activities or programs undertaken in order to satisfy the information needs of the persons with disabilities. In others words collecting information resources and the provision of specialized services consisting of alternative forms, organized for the utilization by physically challenged is called library services for persons with disabilities (Lawal-Solarin, 2012, Momodu, 2013 and Umunnakwe, 2017).

Students with disabilities are the most vulnerable among library users. They are usually re relegated in our society due to their disability and special needs and requirements. In the library, they usually

are confronted with various issues like entering to library building, lack of accessibility to shelves for obtaining information resources and material and in most cases; the available resources are usually not adequate for their utilization. Many university libraries in developing countries, especially in Pakistan are not designed with these groups of persons in mind. For University libraries to live up to the expectation, there is a need for adequate provision of assistive technology for persons with disabilities to fully utilize resources in the library. Unfortunately, Literature has shown that many libraries are in a poor state and require adequate staffing, relevant information resources and adequate vital assistive facilities/technology (Igwela and Opara, 2020).

Unlike the non-disabled, people with disabilities (PWDs) usually don't have prompt access to the information resources. To avoid their deprivation from library resources and services, utmost efforts are made by the library staff to make sure that they have an easy and prompt access to these resources. The number one purpose of the guidelines relating to equal access to libraries and their services, prepared by the IFLA (International Federation of Library Association, 2023) for PWDs, is "to provide basic ideas and strategies on how to make libraries accessible- such as universal design, assistive technology and physical and information accessibility". The guidelines further stated in section 89 of page 3, that "Because libraries and buildings are very different around the world, this checklist does not include quantitative measurements. Therefore, it was recommended that library staff apply the pertinent laws and regulations in each country or test with their disadvantaged customers".

Green (2020) has undertaken a documentary study based on literature review related to the problems faced by SWDs while using the library highlighted the current state of university libraries for meeting the information requirements of PWDs. Based on its analysis and discussion, the study gave several recommendations for the improvement of library service to and advocated for the information needs of these PWDs. The study stated that even with numerous restrictions such as small budget or lack of skilled staff, libraries can increase their services to SWDs. The study concluded that the lack of literature on what university libraries are doing for the support of PWDs appear to be unsatisfactory as there are few publications available on this subject.

Chaputula and Mapulanga (2017) conducted a study on the provision of library services to PWDs in Malawi. The main aim of the study was to explore delivery of library support services to PWDs in Malawi. The study used mixed research method. The study collected data from around 56 participating libraries and 14 SWDs were purposively chosen for interview. A structured questionnaire was also designed for collecting quantitative data. Their study explored the current state of library resources and services to SWDs and pointed out several hindrances faced by the students with disabilities. Results of the study shown several loop holes in the resources and services for the SWDs. These included lack of equipment, lack of assistive technology and the absence of a flat policy to support access and use of library and information resources for SWDs. Despite of the increase in the number of SWDs, most of the libraries did not offer dedicated training to the library staff for catering the needs of those with disabilities. At the end of the study, some recommendations were provided to fully facilitate SWDs in the use of libraries.

Gikunju, Odero and Kwanya (2023) conducted a study on the status of library facilities to SWDs in university libraries in Kenya. The study population consisted of SWDs and staff of the libraries. Data was collected through an online survey using google forms and social media followed by online interviews. Results of the study showed that several university libraries in Kenya had special reading rooms tailored to the needs of the SWDs however these accommodations were inadequate in catering the physical needs of the users. Results showed that the staff of libraries was not skilled in dealing the SWDs. The study observed scarcity of physical facilities and assistive technology for SWDs. The study also indicated that it is not easy to take care of all type of persons with disabilities and meet their all needs. However, the study added that the provision of educational and physical facilities to disabled persons in university libraries is a modernized aspect which needs to be appreciated.

A study conducted on the information requirements of wheel chair users by Sambo et al (2018) found that more than half of the study participants of his survey indicated that they were not satisfied with the services offered by the university libraries. Major problems faced by them included tiny entry and

exit to the library building and its poor architectural design, insufficient chairs and reading tables for SWDs, lack of soft skills of the library staff, discriminative attitude of the staff and fellow users, scarcity of physical facilities for the physically challenged, and out dated books on the shelves. The study suggested that the university administration should take proper measures to facilitate those who have physical disabilities.

Eneya, Ocholla and Mostert (2020) have undertaken a study concerning the accessibility issues of SWDs in the library of the University of Zululand. The study was conducted using a qualitative approach in the explanatory paradigms that used Michael Oliver's "Social Model of Disability" as a supporting theory. The study population consisted of both library staff and SWDs. The study discovered that the physical facilities offered to the SWDs by the library of the University of Zululand were not sufficient. The information services had many loop holes and it was not convenient for the study participants to utilize all the services of the library as these were not tailored to the specific needs and requirements of the students with disabilities. Major problems they faced while accessing and using library resources and services included lack of easy access to library services, lack of resources for SWDs, and lack of special library resources for persons with disabilities especially assistive technology. The problems faced by the library staff in relation to SWDs included lack of sufficient funds, lack of skilled staff and the nonexistence of a policy for persons with disabilities. The study stated it is need of the day to formulate a policy for the disabled persons. The study urged the government for passing the necessary legislation and its implementation in whole country to protect the basic rights of persons with disabilities. The study added that unless SWDs have equal access to informational resources, the university's inclusive education agenda will remain a distant dream. Prompt and easy access to university's information resources and facilities is vital to the complete involvement of SWDs in education. Similarly, comprehensive and inclusive higher education can only be realized when SWDs have equal opportunities for their access to information and knowledge. This aligns with the UN's "Sustainable Development Goals" and the "UN Convention on the Rights for Persons with Disabilities", that promotes equal access to libraries, educational resources and facilities to PWDs. The study was an attempt to raise awareness amongst librarians and university authorities about the existing state of library facilities for SWDs and how to address all-inclusiveness in library service provision.

Bashir et al (2017) undertook a study on library resources for persons with special needs. Main purpose of the study was to identify the existing library resources for PWDs in the libraries of the universities of Lahore. The population of the study was consisted of twenty three library professionals working in various university libraries of Lahore. The study collected data using a structured questionnaire titled "Adaptation in Library Resources Questionnaire (ALRQ)". The research instrument was consisted of five principal modules i. e building access, internal environment, librarians and the services offered by them and library services and adaptive technologies. The responses of study participants were measured using a 3 point liker scale from "yes to some extent". Results revealed that sloping ramps and lifts were available in some of the libraries, directional signs were converted in large prints and call numbers on spine of books were transformed into Braille. However, telecommunication gadgets were not provided to those who had hearing problems. The study recommended that libraries of higher educational institutions should pursue universal design of learning that involves the preparation of policy about provision of library services to PWDs. The study also recommended the allocation of sufficient budget for the construction of disability-friendly buildings and the acquisition of assistive technologies for SWDs.

A study conducted by Williams-ilemobola and Unegbu (2021) on library users' satisfaction from library services by disabled students in Nigeria revealed that the SWDs were well informed about the different facilities and services rendered in the university libraries. The services that were used most by the SWDs included user advisory service and consultancy service. Reprographic and books lending was also used frequently by them which was followed by the usage of white stick. Main difficulties faced by SWDs were found to be non-existence of current awareness services, inadequate course material, poor infrastructure of the library that hindered their smooth accessibility to the resources.

In his study on the accessibility of library resources and services in the underdeveloped countries, Salauddin (2022) stated that libraries are considered as the focal point of educational institutions. Because of this cluster of ladders, library resources and services for PWDs in the developing countries are usually imperfect and have several limitations. The study indicated that university libraries in India, provided library materials and services for SWDs however, such resources and services are not sufficient for their smooth studies and research activities. The study, which was focused on a university library in India, revealed the most of the SWDs often faced issues like lack of resources, lack of suitable formats for SWDs, poor internet access, and unsatisfactory instruction about accessing the library and its resources. The core problem observed by the study was unskillful staff to manage libraries and information centers. The study suggested that the universities in India should hire skilled library professionals especially in the Braille section to support SWDs. Seyama et al., (2015) found that fresh arrived college students who have some kind of disability faced are usually confronted with a number of problems which restricts equal access to information resources and services. Gul & Khowaja, (2020) and Bhutti et al (2019) suggested that university libraries should hire the services of skilled and competent librarians who should be well versed in sign language interpretation and assistive technologies. Kwafoa & Imoro, (2020) have suggested that library administration should organize unique library alignment for those who have visual problems. The study further recommended that university libraries should regularly organize library orientation programs for the SWDs.

With the rapid development in the field of ICTs, some facilities in the library have also been introduced which helps in meeting the specific information needs of SWDs. These facilities are termed as “Assistive Technology” or “Adaptive Technology”. This technology is an excellent tool in establishing an independent and improved learning environment for SWDs (Kalyani and Taj, 2021). Assistive Technology is seen as Computer related aids like; magnification softwares, e-readers, OCRs, speech and hearing aids, computer assisted braille devices, elevators and accessible entrances. These all provide ease of life for PWDs. These computer-assisted gadgets and other non-electronic equipment like; wheelchair, scooters, ramp, walkers, canes etc, according to Shriver (2018), are commonly referred to “Assistive”, “Adaptive”, or “enabling technology” denoted as ATs.

The International Federation of Library Associations and Institutions released a guideline for library facilities to people with special needs (IFLA, 2005) titled “Access to libraries for persons with disabilities – CHECKLIST”. It was stated in No. 89, pg 3 of the guidelines “Because libraries and buildings are very different around the world, this checklist does not include quantitative measurements. Therefore, it is recommended that library staff apply the pertinent laws and regulations in each country or test with their disadvantaged customers”.

Salend (2004) stated that social and emotional support from library staff creates a friendly, accepting and esteemed atmosphere, which results in a sense of belonging. He opined that teachers and librarians play important role in the educational journey of SWDs. He stressed that library staff should be empathetic and create an understanding towards the disadvantaged groups through catering to their needs, and providing relevant information and facilities as part of the efforts to ensure quality of services in libraries. Moore (2003) argues that it is very important to inform SWDs about the all the changes that took place within the library. Informing SWDs about such kind of changes create a feeling among the persons with disabilities of being safe, valued and cared of. He states that when persons of disabilities are not the informed of such changes, they perceive the staff as not being empathetic towards them. Similarly, Forrest (2006) and Todaro (2005) asserts that good empathetic behavior of library staff causes students with disabilities to feel included, valued, and recognized, to the staff and rest of the community.

A study conducted by Umunnakwe (2017) on the provision of library services to persons with physical disabilities in Nigeria and examined the factors that pose challenges to the sustainability of public libraries. Results of study found that only few libraries were offering state of the art services and facilities to persons with disabilities. The study observed that braille and embossed material, large prints, talking books, sign language books were the most accessible information sources for PWDs.

The survey also observed that the numbers of libraries for disabled people in Nigeria were inadequate and their resources and services were meager and outdated. Many of the public libraries provided old-fashioned services inside poor architecturally designed buildings.

Research Design

The study employed a descriptive survey research design using a quantitative approach to examine barriers to library access and inclusion for Students with Disabilities (SWDs) at the University of Peshawar. The population comprised 312 SWDs and 12 library professionals, from which a stratified proportionate sample of 173 SWDs was selected, yielding 110 valid responses (63.58%). Data were collected through a structured questionnaire developed from existing literature, validated through expert review, and refined for clarity. The instrument contained separate sections for SWDs and library staff and was distributed in person and via WhatsApp after obtaining the official list of SWDs. A pilot test involving 15 library staff established the reliability of the scales, with Cronbach’s alpha values ranging from 0.735 to 0.744, indicating good internal consistency. Data collection spanned three months, and SPSS was used for analysis through descriptive statistics such as frequencies, percentages, means, and standard deviations.

Results

The demographic data of the study show that out of the total population of 312, a sample of 173 SWDs was selected, and 110 responded positively. Of these respondents, 39 were MS/M.Phil students while 71 were undergraduate students. Gender-wise details indicate that 80 percent of the respondents were males whereas 20 percent were females, showing that male SWDs participated more actively in the study. Age-wise distribution reveals that 18.18% of the respondents were 20 years or less, 61.81% fell in the age group of 21–30 years, and 20 percent were 30 years or more, suggesting that the majority of SWDs belonged to the young adult age bracket. Regarding the type of disability, 50 percent of the participants had physical disabilities, 38.18 percent had multiple disability issues, and 11.81 percent had visual impairment, indicating that physical and multiple disabilities were more common among the respondents.

Table: 1 Demographic Table of Respondents (N = 110)

Category	Sub-category	Frequency	Percent (%)
Gender	Male	88	80
	Female	22	20
Age	20 years or less	20	18.18
	21–30 years	68	61.81
	30 years or more	22	20
Type of Disability	Physical disability	55	50
	Multiple disability	42	38.18
	Visual disability	13	11.81
Total Respondents	—	110	100

SATISFACTION LEVEL SWDS WITH THE SERVICES AND ENVIRONMENTAL FACILITIES OF THE LIBRARY

To study the satisfaction level of students with disabilities from the services and environmental facilities of the library of the University of Peshawar, responses were measured on a three point likert scale ranging from poor to High. The level was determined as per the following mean scores: 1 to 1.49 = poor (Negative end point) and 1.50 and above = medium and high (Positive endpoint). As given in table 2, the satisfaction level of SWDs with the library services and environmental facilities was generally high. They were more satisfied with issue and return of books and the assistance provided by the library staff. However, their level of satisfaction in terms of the provision of training courses in

the use of library was medium. The overall mean score for the items as a whole shows a high level of satisfaction by the students with disabilities.

Table: 2 Satisfaction level of SWDs from the services and environmental facilities of the library

Ser	Statement	M	SD	Decision	Remarks
1	Issue and return of books for students with disabilities	2.52	0.847	High	Positive endpoint
2	Assistance provided by the library staff to students with disabilities	2.50	0.882	High	Positive endpoint
3	The Provision of training courses in the use of library	2.12	0.982	Medium	Positive endpoint
Average mean		2.38		High	Positive endpoint

BARRIERS HINDERING THE ACCESS AND AVAILABILITY OF INFORMATION RESOURCES AND SERVICES

To examine the barriers faced by SWDs when accessing the library resources and services, they were give 22 statements and were asked to rate them on a four point likert scale from strongly disagree to strongly agree. Results showed a number of factors that hinder students' access to the library resources and services. As given in table 3, respondents showed their agreement with lack of financial support (Mean 3.24), In-adequacy of reading material (Mean 3.42), Unskilled library staff (Mean 3.00), Inadequate transportation to reach the library (Mean 3.00), Poor maintenance (Mean 2.88), Rude behavior of library staff (Mean 2.80), Inadequate physical facilities, lack of reading material (Mean 3.44) Lack of information literacy skills of students (Mean 3.12), Toilet is not easily accessible (Mean 3.42), Elevators are not convenient (Mean 3.48), The reprographic service is poor (Mean 3.22), Main counter is not convenient (3.42), Lack of computers (Mean 3.44), and Slow internet connectivity (Mean 3.38) . However, they showed their disagreement with High cost of library fee (Mean 2.12), Refusal of the professional librarians to for meeting students (Mean 2.32) and Low visit ratio of the students to the library (Mean 2.06), Noisy atmosphere of the library with a mean score of 2.04, Lighting system is poor (Mean 2.22) and Lack of space (Mean 2.02).

Table 3: Barriers hindering the access and availability of information resources and services

Ser	Barriers/Challenges faced	Mean	Decision
1	Lack of financial support	3.24	Agree
2	In-adequacy of reading material	3.42	Agree
3	Unskilled library staff	3.00	Agree
4	Inadequate transportation to reach the library	3.00	Agree
5	Poor maintenance	2.88	Agree
6	High cost	2.12	Disagree
7	Rude behavior of library staff	2.80	Agree
8	Lack of information literacy skills of students	3.12	Agree
9	Refusal of the professional librarians to for meeting students	2.32	Disagree
10	Low visit ratio of the students to the library	2.06	Strongly disagree
11	Noisy atmosphere of the library	2.04	Strongly disagree
12	Inadequate physical facilities and lack of reading material for the persons with disabilities.	3.44	Agree
13	Main entrance is not convenient	2.22	Disagree
14	Main exit is not convenient	2.02	Strongly disagree
15	Toilet is not easily accessible	3.42	Agree
16	Elevators are not convenient	3.48	Agree

17	The reprographic service is poor	3.22	Agree
18	Main counter is not convenient	3.42	Agree
19	Lighting system is poor	2.22	Disagree
20	Lack of computers	3.44	Agree
21	Slow internet connectivity	3.38	Agree
22	Lack of space	2.02	Strongly disagree

Rating scale: 1= Strongly disagree agree, 2=disagree, 3= Agree, 4=strongly agree

USE OF LIBRARY SERVICES BY THE STUDENTS WITH DISABILITIES

To know about the use of library services, SWDs were asked to show the frequency to which they use services offered by their library. Their responses were measured using a five point likert scale from Never to every time. Parameters for frequency level for mean scores were set as Never/almost never = less than 2.50 (Negative endpoint), Sometimes/almost every time/every time = 2.50 or more (positive endpoint) Results showed that students with disabilities made use of library services with an average mean of 3.36 indicating that they perceived library services important. The most frequently used library services, as indicated by the study participants was found to be information literacy services with a mean score of 3.72 followed by library orientation services with a mean value of 3.68. This was followed by online services (Mean=3.60), current awareness services (Mean=3.52), and selective dissemination of information (Mean= 3.32). The rarely used services included Large prints (Mean=3.00), reference service (Mean=3.12), Reprographic service (Mean=3.20), Issue and return of library material (Mean=3.22), and Translation service (Mean=3.28). The students did not respond to Braille service, Talking books, Read aloud machines, and elevators. This is due to the fact that the central library of the University of Peshawar do not have these services. Details are depicted in table 4 below.

Table 4: Use of library services by the students with disabilities

Ser	Usage of library services	Frequency	Mean	Std. Dev.	Remarks
1	Issue & return of library material	110	3.22	0.79	Positive endpoint
2	Reference services	110	3.12	1.14	Positive endpoint
3	Current Awareness Services (CAS)	110	3.52	0.88	Positive endpoint
4	Reprographic services	110	3.20	0.80	Positive endpoint
5	Translation services	110	3.28	0.78	Positive endpoint
6	Online services	110	3.60	0.92	Positive endpoint
7	Information literacy services	110	3.72	1.12	Positive endpoint
8	Library orientation services	110	3.68	1.00	Positive endpoint
9	Large prints	110	3.00	1.38	Positive endpoint
10	Braille services	110	00	00	No response
11	Talking books	110	00	00	No response
12	Read aloud machines	110	00	00	No response
13	Elevators	110	00	00	No response
14	Selective Dissemination of Information (SDI)	110	3.32	1.16	Positive endpoint
Overall mean			3.36	0.99	Positive endpoint

ADEQUACY OF LIBRARY RESOURCES AND SERVICES FOR STUDENTS WITH DISABILITIES

The study asked SWDs to mention the adequacy of library resources and services provided to them by the central library of the University of Peshawar. They were given fourteen statements and were asked to tick all on a five point likert scale from not adequate to highly adequate. Results showed that only of the five resources and services offered by the central library were adequate with a mean score of

3.5 or above. These included reprographic services, information literacy services, library orientation service, online services, and lending services with mean scores of 3.67, 3.64, 3.58, 3.50 and 3.54 respectively. As given in table 5, the overall mean scores of the ratings indicated that the resources and services offered by the library were average.

Table 5: Students' perceptions about the adequacy of library resources and services

Ser	Library resources and services	Frequency	Mean	Std. Dev.	Remarks
1	Issue & return of library material	110	3.54	0.74	Positive endpoint
2	Reference services	110	3.48	0.58	Positive endpoint
3	Current Awareness Services (CAS)	110	3.18	1.83	Positive endpoint
4	Reprographic services	110	3.67	0.74	Positive endpoint
5	Translation services	110	2.34	1.27	Negative endpoint
6	Online services	110	3.50	0.42	Positive endpoint
7	Information literacy services	110	3.64	0.28	Positive endpoint
8	Library orientation services	110	3.58	0.82	Positive endpoint
9	Large prints	110	1.21	2.48	Negative endpoint
10	Braille services	110	1.12	1.94	Negative endpoint
11	Talking books	110	1.00	--	Negative endpoint
12	Read aloud machines	110	00	--	--
13	Elevators	110	00	--	--
14	Selective Dissemination of Information (SDI)	110	2.42	1.264	Negative endpoint
Average mean			2.72	1.162	Positive endpoint

ADEQUACY OF THE PHYSICAL FACILITIES FOR STUDENTS WITH DISABILITIES

The study sought perceptions of students with disabilities to assess the adequacy of physical facilities required by them in the central library. They were given 20 items and were requested to rate their adequacy as per a four point likert scale ranging from inadequate to highly adequate. Parameters for adequacy level were set as least adequate/inadequate = less than 2.50 (Negative endpoint), adequate = more than 2.50 but less than 3.50 (positive endpoint) and highly adequate = 3.50 or more (Positive endpoint). Results showed that armrest chairs were rated as highly adequate with a mean score of 3.58. Stair railings, Reading tables of varying height, Smooth floor surface, Clear sign boards/pictograms indicating various sections, Wide doors for wheel chair entry, Study carols, and Shelves with appropriate height were rated as adequate. Whereas, Walkers, emergency exits, wide entry path to the library building, braille books, large print books, ramp, elevators, Washrooms, Mirrors, water tap, washbasin in the washrooms at appropriate height, Adjustable tables, parking near to the library, Wheel chairs, and hearing aids were rated as least adequate. More details are given in table 6.

Table 6 : Adequacy of the physical facilities for students with disabilities

Ser	Facilities	Mean	decision	Remarks
1	Armrest chairs	3.58	Highly adequate	Positive endpoint
2	Walkers	1.20	Least adequate	Negative endpoint
3	Stair railings	3.44	adequate	Mid-point
4	Emergency exits	2.44	Least adequate	Negative endpoint
5	Reading tables of varying height	2.51	Adequate	Positive endpoint
6	Smooth floor surface	2.68	Adequate	Positive endpoint
7	Wide entry path to the library building	2.22	Least adequate	Negative endpoint
8	Braille books	1.10	Least adequate	Negative endpoint
9	Large print books	1.22	Least adequate	Negative endpoint
10	Ramp	1.02	Least adequate	Negative endpoint

11	Elevator	1.11	Least adequate	Negative endpoint
12	Washrooms	2.34	Least adequate	Negative end point
13	Mirrors, water tap, washbasin in the washrooms at appropriate height	2.11	Least adequate	Negative endpoint
14	Clear sign boards/pictograms indicating various sections	3.22	adequate	Positive endpoint
15	Wide doors for wheel chair entry	3.16	adequate	Positive endpoint
16	Adjustable tables	2.11	Least adequate	Negative endpoint
17	Parking near to the library	2.42	Least adequate	Negative endpoint
18	Study carols	3.27	adequate	Positive endpoint
19	Shelves with appropriate height	2.62	adequate	Positive endpoint
20	Wheel chairs	1.22	Least adequate	Negative endpoint
21	Hearing aids	1.12	Least adequate	Negative endpoint

PERCEPTIONS AND ATTITUDES OF LIBRARY STAFF TOWARDS SWDS

To know examine the perceptions and attitude of the library staff regarding the existing information resources and services of the central library for students with disabilities, the staff of the library was approached and a list of 29 information resources and services needed by the SWDs were given to them and were asked to indicate whether these are available with them. Table 7 depicts existing information resources and services for students with disabilities in the Central Library of the University of Peshawar. Results showed that the central library of the University of Peshawar contained the following resources, equipment and services for students with disabilities: magnifiers (one item), talking books (one item), microforms (8 items), Braille books (4 items), Translation softwares (2 items), Lamp for focused lighting (2 items), Separate reading room for students with disabilities (1 item), hearing aids ((2 items), Special staff to assist students with disabilities (1 item), Mirrors, water tap, washbasin in the washrooms at appropriate height (Several), Stair railings (with all stairs), Clear sign boards/pictograms indicating various sections (several), Study carols (8 items), and Armrest chairs (Several). All other items were not available in the library.

Table 8 : Existing information resources and services in the central library of the University of Peshawar

Ser	Existing information resources and services for students with disabilities	Number of items	Remarks
1	Large print books	Nil	Not available
2	Voice recognizing softwares	Nil	Not available
3	Screen readers for disabled students	Nil	Not available
4	Magnifiers	1	Available
5	Voice enabled scanner	Nil	Not available
6	Voice reader	Nil	Not available
7	Talking books	2	Available
8	Microforms	8	Available
9	Large print books	Nil	Not available
10	Braille books	4	Available
11	Translation softwares	2	Available
12	Embossed keyboards	Nil	Not available
13	Tapes	Nil	Not available
14	Read aloud machines	Nil	Not available
15	Lamp for focused lighting	2	Available
16	Zooming texts	Nil	Not available
17	Hearing aids	2	Available

18	Separate reading room for students with disabilities	1	Available
19	Separate washrooms for students with disabilities	Nil	Not available
20	Special staff to assist students with disabilities	1	Available
21	Wheel chairs	Nil	Not available
22	Mirrors, water tap, washbasin in the washrooms at appropriate height	Available	Available
23	Stair railings	With all stairs	Available
24	Walkers	Nil	Not available
25	Ramp	Nil	Not available
26	Elevator	Nil	Not available
27	Clear sign boards/pictograms indicating various sections	several	Available
28	Study carols	8	Available
29	Armrest chairs	several	Available

LIBRARY STAFF EMPATHETIC ATTITUDE TOWARDS STUDENTS WITH DISABILITIES

To assess the sense of empathy of library staff towards students with disabilities, a self-constructed scale consisting of 14 questions was prepared. These were mostly related to their sense of empathy towards SWDs (see table 7). The library staff of the Central Library of the University of Peshawar were asked to reply in yes or no to these questions. The study also highlighted students' feelings and experiences toward sense of empathy of the library staff (table 8).

Their responses provided by the library staff was found to be friendly and full of empathy which were mostly based on their greeting, soft and friendly interaction, and their desire to help them in searching and finding books for the students with disabilities. Almost all of the library staff of the University of Peshawar indicated that they greet SWDs with salutation when they arrive in the library. Their interaction with them was friendly; they were willing to help them personally; they interacted in soft tone with them and replied with a smiling face; gave sufficient time to search for a book needed by SWDs; helped SWDs to fill in the necessary forms needed for library membership; addressed complaints of SWDs about the physical facilities in the library; and knew the physical limitations of the SWDs when using the library. Details are given in table 4.12 below.

Similarly, as given in table 4.13, students with disabilities stated that the library staff's 'friendly, empathic attitude made them feel of being accepted, valued, cared, respected, and welcomed. This behavior of the library staff not only influenced their positive attitudes towards them, but also promoted the creation of a sense of inclusion or belonging to the library atmosphere. However, some of the empathetic attitude of the library staff towards SWDs was seen as negative for example, as depicted in table 8, when they were asked to mention whether they feel as minority when any library staff member refuse to help them find a book when he is too busy. They replied in positive which indicates an adverse impact on the part of library staff. In the same way other empathetic attitude which had a negative impact included the help extended by library staff to SWDs to fill in the necessary forms needed for library membership, and when a librarian scolds them for returning books after the due date is over.

Table 9: Library staff empathetic attitude towards students with disabilities

Ser	Library staff's sense of empathy towards SWDs	Response in YES or NO	Impact
1	Do you greet SWDs with salutation (Hi, salam, good morning etc.) when they arrive to the library?	Yes	Positive
2	Is your interaction/conversation friendly with SWDs in the library?	Yes	Positive
3	Is all the staff willing to help SWDs personally?	Yes	Positive

4	Does staff bring gifts for SWDs during festivals?	No	Negative
5	Do you communicate in soft tone of your voice when interact with a SWDs?	Yes	Positive
6	Do you reply with a smiling face to the queries of SWDs?	Yes	Positive
7	Is all the staff willing to help SWDs?	Yes	Positive
8	Does staff talk loudly when interacting with SWDs?	No	Positive
9	Do you refuse to help SWDs to find a book when you are too busy?	Yes	Negative
10	Do you give sufficient time to search for a book needed by SWDs?	Yes	Positive
11	Do you help SWDs to fill in the necessary forms needed for library membership?	Yes	Positive
12	Do you really address complaints of SWDs about the physical facilities in the library?	Yes	Positive
13	Do you scold SWDs when they return books after the due date is over?	Yes	Negative
14	Do you know the physical limitations of the SWDs when using the library?	Yes	Positive

AWARENESS OF LIBRARY STAFF REGARDING THE INFORMATION NEEDS OF STUDENTS WITH DISABILITIES

The awareness of the needs and requirements of library professionals with SWDs can shape their attitude towards serving these users. This study examined library staff's awareness about the information needs and requirements of students with disabilities. On a five point likert scale from strongly disagree to strongly agree, (1 = strongly disagree, 2= disagree, 3= somehow agree, 4= agree, 5= strongly agree.) the library staff was asked to show their level of agreement with thirteen statements with respect to information needs of SWDs. The study's lowest possible mean score for each statement on the Likert scale was set as 1.0 point and the highest as 5.0 while the mid-point was set as 3.0. These mean scores were used to categorize the responses of the study participants as "agree" or "disagree". As given in table 10, our results showed that the most important requirement of students with disabilities were: Websites are important tools for students with disabilities for accessing information (Mean: 4.68), Library staff requires special training to serve students with disabilities (Mean: 4.62), Students with disabilities require assistive technology to facilitate access to information (Mean: 4.60), Students with disabilities require books in special formats (Mean: 4.59), It is important to periodically gauge and evaluate the resources and services provided by the library to students with disabilities (Mean: 4.54), Students with disabilities need special reading space in the library for accessing their required information (Mean: 4.49), It is important to conduct surveys for identification of the information needs and requirements of students with disabilities and There should be a separate rest room within the library for the students with disabilities (Mean: 4.42 each), Students with disabilities require selective dissemination of information (Mean 4.40), Students with disabilities require extended loan period (Mean; 3.78), Students with disabilities require books delivery service to their residence (Mean: 3.41), Students with disabilities require customized study chairs and tables (Mean: 3.41), and Students with disabilities require waived fines (Mean: 3.32). Thus, it can be inferred from the mean scores that the library staff members were well aware about the needs and requirements of the students with disabilities (SWDs).

Table 10: Awareness of library staff of the information needs of the people with visual and physical impairments

Ser	Statement	M	SD
1	Library staff requires special training to serve students with disabilities (SWDs)	4.62	0.62

2	Students with disabilities require extended loan period	3.78	0.76
3	Students with disabilities require waived fines	3.32	0.44
4	Students with disabilities require selective dissemination of information	4.40	0.28
5	Students with disabilities require books delivery service to their residence	3.41	1.21
6	Students with disabilities require customized study chairs and tables	3.41	0.48
7	Students with disabilities require books in special formats	4.59	0.61
8	Students with disabilities require assistive technology to facilitate access to information	4.60	0.90
9	Websites are important tools for students with disabilities for accessing information	4.68	0.83
10	It is important to conduct surveys for identification of the information needs and requirements of students with disabilities	4.42	0.85
11	It is important to periodically gauge and evaluate the resources and services provided by the library to students with disabilities	4.54	0.68
12	Students with disabilities need special reading space in the library for accessing their required information	4.49	0.88
13	There should be a separate rest room within the library for the students with disabilities	4.42	0.56

Discussion

Persons with disabilities have similar information requirements as people without disability, and since the library is a service-oriented organization meant for everyone, it must provide state-of-the-art services so that SWDs do not feel left out. Although university libraries support teaching, learning, and research, a major problem arises because the library building and infrastructure were built without considering adequate passage and movement for physically challenged students. The satisfaction level of disabled students with library services and environmental facilities was generally high, especially with issue and return of books and assistance by library staff, supporting the findings of Galan-Wells (2024) and Samdi (2022). Medium satisfaction with training courses aligns with Phukubje and Ngoepe (2017), while Babiker (2014) and Khachartan (2014) indicated that staff was untrained and inefficient. Barriers hindering access included lack of financial support for assistive technologies, inadequacy of reading material, poor maintenance of building and furniture, poor reprographic service, inconvenient counter, lack of computers, and slow internet. Respondents disagreed that noisy atmosphere, poor lighting, high library fee, or refusal of librarians were barriers. Students did not respond to questions on Braille service, talking books, read-aloud machines, and elevators because the library lacked these services, which supports studies by Williams-Ilemobola et al. (2022), Onsinyo (2018), and Chaputula & Mapulanga (2017) emphasizing the need for elevators, ramps, Braille books, and hearing aids. IFLA guidelines state that librarians must know various disabilities, and Pionke (2020) and Gikunju, Odero & Kwanya (2023) stressed the need for staff training.

Armrest chairs were rated highly adequate, while stair railings, tables, smooth floors, sign boards, wide doors, study carrels, and shelves were adequate. Walkers, emergency exits, wide entrances, Braille books, large print books, ramps, elevators, washrooms, mirrors, water taps, adjustable tables, parking, wheelchairs, and hearing aids were least adequate. Library staff was found friendly and full of empathy, greeting SWDs, interacting in soft tone, helping in book search, filling forms, addressing complaints, and understanding their limitations. SWDs stated this attitude made them feel accepted, valued, cared, respected, and welcomed, promoting inclusion as noted by Salend (2004) and Moore (2003). Literature shows attitudinal barriers negatively affect inclusion (Todaro, 2005; Forrest, 2006), and negative attitudes, lack of disability awareness, and poor communication prevent a welcoming environment. Studies by Bodaghi and Zainab (2012), McCaskill and Goulding (2001), Bodaghi et al. (2016, 2014), Loreman (2001), Kariba (2009), and Anambo (2007) found unfavorable attitudes and lack of training.

Librarians were not satisfied with library entry and exit, parking, and counter accessibility. Ramps,

elevators, disability-friendly washrooms, large print signs, Braille call numbers, and telecommunication devices were unavailable, consistent with Williamson (2002), Okoli (2010), and Guyer & Uzeta (2009). Burke (2009) concluded that efforts to eliminate barriers were positive when PWDs had used libraries before. Library professionals lacked knowledge of talking books, Braille books, sign language, telecommunication devices, readers, research assistants, large monitors, and Braille printers. These findings align with Miller-Gatenby and Chittenden (2000), Huang (2009), and Murray (2000), who stressed staff training, service training, equipment training, and legal training.

Conclusion

Inclusive education requires more than physical inclusion of SWDs in mainstream classrooms and libraries. It requires addressing all forms of barriers that hamper equal access to libraries. This research explored problems faced by SWDs in the library of the University of Peshawar, one of the largest university libraries of Pakistan. The study identified several of the barriers to library access and inclusion for students with disabilities like lack of educational resources in alternative formats, shortage of capable reading assistants, non-existence of assistive technologies, lack of physical facilities, poor physical infrastructure of library building, lack of ICT training facilities, and failure of the library to deliver services in time. Research studies have shown several of the similar problems that exist in the libraries of higher educational institutions in developing countries (Lamichhane 2015). The presence of such kinds of problems shows the necessity to sensitize teachers, librarians and university administration on the needs of SWDs. Furthermore, the existence of dozens of computers in libraries and information centers and the inability of students with disabilities to access them, the confusion of roles and responsibilities between the university administration and libraries show a structural problem that has to be corrected. Moreover, lack of physical facilities for SWDs and burying disability accommodation places deep into the organizational structure would inhibit their capability to deliver services in time.

A society can develop when the educational and economic development are in balance. The information always plays a vital role. Therefore, it is very necessary to impart education in such a way so that every member of the society can have access to the pivotal information for their overall development. The persons with some disabilities are also a principal part of the community. They should also be driven out by the common people to inculcate creativity and productivity. Library and information services to the disabled are very important to every society. There is a wide gap between the access and uses of library resources in developed countries and underdeveloped countries (Ngcongolo and Oyelana, 2017). For the disabled people from developing countries, library service is a critical channel, which may be the only source of information (Zaid, 2017). They are not able to access the information services like others. Therefore, the libraries always should try to satisfy its users with disabilities by providing the utmost facilities and services. The disabled users as well as the librarians should also be able to operate the assistive technologies and equipment introduced in the library for fruitful use. The authority should allot sufficient fund to uplift the condition of the libraries that meet the disabled users' need. An action plan for the requirements of the persons with special needs can lead to the expected result for better library services to the persons with disabilities. They don't need our sympathy, they need our support. The thesis is concluded with the beautiful words by Oliver Sacks, a neurologist and writer, "I wish for a world that views disability, mental or physical, not as a hindrance but as unique attributes that can be seen as powerful assets if given the right opportunities (The Daily Chicago Tribune, June 21st 2025)."

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