Accessibility, Inclusivity, and Satisfaction Persons with Disabilities in University Libraries of Pakistan

Rabia Mumtaz[1], Dr. Mahe-Bushra Asghar[2],

Abstract

Purpose: The study aimed to assess the satisfaction levels of Persons with Disabilities (PWDs) regarding library resources and services offered in university libraries of Punjab, Pakistan and to identify the obstacles encountered by PWDs in accessing these resources and services within the university libraries of Punjab, Pakistan.

Methodology/approach/design: This study used a quantitative approach based on a survey research methodology. The population consisted of university libraries of Punjab province that had separate centers for persons with disabilities. Data was obtained from persons with disabilities via a questionnaire. Using the SPSS software, descriptive and inferential statistical tests were performed. These tests included one-way ANOVA, measures of central tendency and dispersion, as well as frequency and percentage calculations.

Findings: The results of the study highlighted various challenges encountered by PWDs in accessing required resources to meet their needs within the library environment. Among the top-rated problems identified by respondents are physical obstacles, restricted access to content in accessible formats, and inadequate signage and information for PWDs The satisfaction levels of persons with disabilities about library resources and services offer substantial information into their experiences and perceptions within the library context. Among the top-rated aspects of satisfaction are the availability of comfortable spaces for reading and studying, accessibility of staff assistance, and satisfaction with library programs and events.

Conclusion: The study revealed several key elements that contribute to the positive library experience of PWDs. These elements include the availability of quiet areas for reading and studying, the friendliness of library personnel, and the quality of library programs and events. The undertaken research reveals that PWDs generally report a high degree of satisfaction over the availability of accessible resources, which include braille books, large-print texts, audiobooks, and digital materials compatible with screen readers.

Originality: The research highlights the need for libraries to implement comprehensive strategies that address these obstacles and ensure that PWDs have equal access to library resources and services.

Keywords: Persons with Disabilities; PWDs; Library services; Library resources; satisfaction level; disabled users; Students with Disabilities; SWDs; university libraries; Punjab; Pakistan

[1]Assistant Director National Library of Pakistan, Email: rabiamumtaz1155@gmail.com
[2]Associate Professor Department of Information Management, The Islamia University of Bahawalpur

Introduction

A person with disability is defined as someone who is unable to work because of an injury, disease, or congenital deformity, as well as people who are visually impaired, hearing impaired, and physically and psychologically challenged (Ahmed et al., 2011).Due to the distinctive cognitive, developmental, social, and emotional transformations and phases experienced by PWDs, librarians must possess a distinct array of abilities, knowledge, and interpersonal skills in order to engage with them in an effective manner- (Grassi,2018). Access to information is crucial for all individuals, and every library strives to offer accurate and timely information in the appropriate format to its users, irrespective of their race, religion, age, gender, nationality, or language. This fundamental role entails the dissemination of information to PWDs and should not be subject to discriminatory practices in terms of information provision- (Williams-Ilemobola et al., 2023).Libraries are crucial to organizations that provide their clients with a range of materials to help them and meet their information demands. Additionally, libraries must carry out all of their duties in order to achieve their objectives for user satisfaction because users come in a variety of forms and sizes and have different information needs. (Nazim et al., 2021). Inclusive education focuses on achieving fairness, societal fairness, active involvement, and the attainment of citizenship. It concerns the elimination of obstacles related to prejudice and subjugation, and it pertains to the welfare of all students, especially for PWDs. It is founded on an optimistic perspective that regards individual variety as an asset. The primary focus is on striving for transformation, with a significant emphasis on the value of coexistence and acknowledging our shared human nature- (Khot et al., 2022). Higher education (HE) in international contexts is undergoing a series of reforms in relation to disability. A clear example of this trend is the creation of separate sections in most institutions to help people with disabilities. Another important thing that has led to and is still leading to progress in this field is the increased number of disabled students who are going to college (Moriña, 2017).The five laws of library science tell libraries how to make their services available to people with disabilities (Yadav and Arora, 2019). The mission of inclusive education is to engage participants from all spheres of life and societal backgrounds. Methods of education that are inclusive for all students need to be modified to take into account the existence of assistive technologies and disabilities. In order to successfully complete all of these inclusive learning activities and to educate students with impairments, assistive technology is utilized. It is the responsibility of every educational institution to make sure that curriculum and learning resources are accessible to PWDs in a way that enables them to receive an education on par with students from other parts of society. It is not sufficient to simply have teachers accessible in the school; rather, it is essential for teachers to learn a variety of skills in order to effectively instruct PWDs (Khot et al., 2022).In late 2002, the Pakistani government came up with a national strategy for people with disabilities. The next year, they released a "National Plan of Action for Persons with Disabilities." After that, the "Special Citizens Act of 2008" was passed to give special rights to exceptional people. The "Exceptional Citizens (Right to Movement Concessions) Act, 2009" was passed the following year to help people with disabilities, especially students with special needs. The Pakistan National Education Policy 2017 made sure that everyone had equal access to educational opportunities by making sure that there were enough facilities.The government should establish a conducive learning environment that promotes equitable opportunities for everyone to engage and learn collaboratively (Malik et al., 2023). Regarding Pakistan, multiple data sources offer different estimates of the total number of PWDs in the country, thereby providing information on the frequency of disability. The prevalence of disability in the Population Census 2017 was partially or inaccurately assessed due to the inclusion of the disability item in the census questionnaire while the process of counting had already begun. Based on the 2017 Population Census, the country's overall number of Persons with Disabilities (PWDs) was 0.91 million. This figure consisted of 0.56 million males, 0.345 million females, and 3,584 transgender individuals. These data indicate a disability prevalence rate of only 0.4 percent-(Khalid & Yaseen, 2023).

In Pakistan, there is a need to do a lot for the welfare and uplift of PWDs as the major portion of society is lethargic towards understanding of their problem and providing their due rights. When it comes

to using the library, PWDs confront various problems. In Pakistan, the subject of PWDs having access to libraries has received little attention. Many libraries, on the other hand, have viewed the shift in thinking on disability as a continuation of the user-service attitude of librarianship, as opposed to a defensive measure brought on by a concern about legal action. It would be more accurate to see the development of disability services in libraries during the past 10 to 15 years as a result of the profession's long-term commitment to improving service delivery in libraries rather than just as a result of broader societal and legal trends.

Statement of the Problem

The optimal library is one that provides its resources and services to the PWDs disregarding their impairments Research undertaken globally underscores the insufficiency of library resources and infrastructure. The lack of information resources and specialized services makes life very difficult for PWDs. These obstacles make it harder for people with disabilities to take part in educational research. It is important to fix these gaps in the library system so that everyone can use it equally. These inclusive library standards stress how important it is to have inclusive policies, specific collections, assistive technologies, and staff training in order to fulfill the requirements of people with disabilities. In Pakistan, it is very important to find out how well university libraries meet these international criteria. Many students in college or university have physical or mental issues, such as problems with their vision or hearing, or trouble moving about. Nonetheless, there exists a paucity of research regarding the degree to which these students are supported inside university library systems. It is important to look into how happy and what problems PWDs have in Pakistani university libraries in order to assess the current services, find gaps, and suggest changes that could make them more accessible.Previous research has examined educational services in universities and evaluated various disabilities; including hearing, cognitive, visual, and physical disabilities, while library services have been neglected. The majority of research emphasized larger dimensions of disability inclusion in higher education but overlooked the provision of library services to PWDs. Consequently, there exists a knowledge gap concerning the provision of library materials and services to PWDs in university libraries in Pakistan. The purpose of this study is to address the deficiency by evaluating the satisfaction of PWDs regarding library resources and services in both public and private universities accredited by the Higher Education Commission (HEC) of Pakistan. The study's findings indicates that ensuring equitable access to all library resources and services PWDs has significant social implications. PWDs can engage in national development, and universities can facilitate their meaningful contributions to society.This research study is expected to make a significant impact on aligning library services with international standards, advocating an environment of inclusivity, and introducing training to establish inclusive knowledge and information centers.

Objectives of the Study
  i.   To determine the satisfaction level of persons with disabilities about university library resources and services.
  ii. To find out the barriers faced by PWDs while getting access to library resources.
  iii. To propose recommendations for the future provision of effective provision of library resources and services for PWDs in university libraries of Punjab, Pakistan.

Research Questions
  i.   What is the satisfaction level of PWDs about library resources and services?
  ii. What barriers are PWDs facing while accessing library resources and services?
  iii. What are recommendations for the future provision of effective information resources and services for PWDs in university libraries of Punjab, Pakistan?

Literature Review

Kotso & Mohammed, (2011) evaluated the degree of satisfaction among library and information science users at a special education institution in Plateau state. Libraries within special education institutions in Plateau provide a range of essential information resources and services, most of which are specifically designed to address the unique challenges faced by their users. Dimitriadis et al., (2013) pointed out because of their role as service organizations, academic libraries are always looking for new methods to better serve their patrons and augment the overall number of individuals utilizing their resources. From this point of view, libraries should reach out to its patrons, who are also considered clients, in order to understand more about their research and educational goals. Al-Rashaida et al. (2018) posited that the satisfaction of persons with disabilities (PWDs) concerning Vocational Rehabilitation (VR) programs does not indicate the insufficiency of VR centers in delivering relevant services; rather, it functions as an essential tool for the empirical evaluation of VR service quality, thereby enhancing the effectiveness of VR programs and improving the operational practices of VR centers, particularly for PWDs. F. Bashir et al., (2018) assesses user satisfaction with library collection quality and quantity. A self-administered questionnaire comprising both open and closed-ended items was developed. A purposive sample of 100 users was recruited. The data were assessed qualitatively through a thematic approach. The library's response to the proposed titles was favorable. Almost fifty percent of respondents expressed satisfaction with the library's fulfillment of their recommended titles. Many were upset with the lack of equal book collections and insufficient support from library workers throughout the book suggestion process. The report suggests assessing current library collections.Mugo & Mathu, (2021) stated that businesses large and small, public and private adhere to the principle of customer service providing to guarantee that clients are happy with the services they receive. Libraries have realized they aren't the only ones who can provide the information needs of their patrons due to the proliferation of information vendors. As technology progresses, the use of ICT technology may result in fewer physical library visits. Scholars and librarians conduct customer satisfaction surveys to identify elements that encourage or discourage service us Couto et al., (2022) pointed out that assessment of satisfaction levels indicates that caregivers are content with the care delivered. Nonetheless, displacement appears to be a detrimental element for accessibility, given the majority of users rely on public transportation. Regarding the quality of life of caregivers, most respondents reported a satisfactory quality of life, despite limited chances for leisure activities and the frequent occurrence of unpleasant feelings. Al Alawi & Crisostomo, (2024) highlighted diverse sustainable initiatives available for (PWDs) in Oman; to evaluate the local community's awareness of these initiatives and their satisfaction with the facilities and services offered to PWDs, and to examine the correlation between awareness and satisfaction regarding the services provided to PWDs. The results indicated that a significant portion of the public possessed a strong awareness of the educational programs, access services, opportunities for employment, and healthcare available for PWDs. A good satisfaction rating was achieved for the accessibility and services of the given facilities. Senjam et al., (2025) discussed that for PWDs to be able to live independently and take part in society, it is essential that they have access to assistive goods and services that are designed with them in mind. The survey indicated high satisfaction among PWDs about assistive technology, particularly in relation to product aesthetics and the fulfillment of clients' demands for performing daily activities.
.

Research Methodology

A quantitative research method was applied to address the study's research questions. Quantitative research relies on numerical data for interpretation and analysis across numerous fields, including education, management sciences, social scien ces, and healthcare. It guarantees objectivity by using organized approaches to make sure that the results are legitimate and reliable. It helps find connections between variables (Goundar, 2012).

The questionnaire was made to get information from people with disabilities (PWDs). The questionnaire had three parts: socio-demographic profile, level of satisfaction, and problems experienced.

The questionnaire collected demographic information and usage patterns of people with disabilities in libraries, such as the type of disability (visual, hearing, physical, learning, or cognitive/mental disabilities), how often they use the library (daily, weekly, monthly, or rarely), and how they access it (in person, online, through a mobile app, or another way).The questionnaire sought out people how happy they were with library services on a five-point scale from "Strongly Dissatisfied" to "Very Satisfied." It asked about things like the availability of accessible formats (Braille, e-books, etc.), assistive technology (screen readers, magnification software), staff help, quiet and comfortable reading areas, library programs/events, and ways to give feedback. It also found nine specific challenges that people with disabilities face in libraries, such as physical barriers (like a lack of ramps, elevators, or accessible seating), poor signage, a lack of accessible materials (like Braille, audio, or large print), unhelpful staff, digital accessibility issues, a lack of assistive technology, limited library hours, copyright restrictions, and crowded spaces. These challenges were rated on a Likert scale from "Strongly Disagree" to "Strongly Agree."To determine the reliability between the questionnaire items, Cronbach's Alpha test was conducted. All values returned with the ranges from 0.675 to 8.25. These results confirmed the reliability of the questionnaire.The population consisted of university libraries of Punjab province that had separate centers for persons with disabilities. There were 79 universities in Punjab Province, thirty-five such universities in the public and private sectors were identified. There were almost 1,500 disabled students enrolled in the universities. The research used convenience sampling, keeping in view data collection issues with the special persons. In-persons visits were made to the relevant universities. Required data were gathered from available persons with disabilities. They were briefed on questions orally and the researcher filled in the responses herself. For some universities, assistance was taken from the concerned librarians to support in gathering required responses from the persons with disabilities. The researcher also deputed some volunteers to gather data from the PWDs through oral instructions to receive ensure responses. Two hundred seventeen217 persons with disabilities submitted their responses regarding satisfaction level and challenges related to library resources and services. The received datasets were sorted, arranged and ranked in a standardized order for executing different statistical tests. The researcher applied the Statistical Package for Social Sciences (SPSS) software version 26 for the analysis of survey data. Descriptive and inferential statistical tests were carried out in SPSS Software consisted of frequency, percentages, measures of central tendency, measures of dispersion, one-way ANOVA, and regression etc.

Data Analysis

Type of Disability
           The participants were requested to specify their type of disability. Preponderance of the respondents (n = 157) mentioned that they had physical impairment. The second majority were visually impaired (n = 35). The third majority had hearing impairment (n = 17). Table 1 shows type of disability of the respondents.

Table 1
Type of Disability

Type of Disability	Frequency	Percent
Visual impairment	35	16.1
Hearing impairment	17	7.8
Physical impairment	157	72.4
Learning disabilities	7	3.2
Cognitive/Mental disabilities	1	.5

Usage of the Library Services
           The participants were requested to indicate their utilization of library services. Majority of the respondents responded that they used library services a few times a month or once a month (n = 71 each).

32 (14.7%) respondents used the library services on daily basis and 27 (12.4%) utilized library's resources and services a few times a month while 16 (7.4%) respondents rarely or never used the library services. Table2 displays the statistics of the utilization of library services.

Table 2
Usage of the Library Services

Usage of Library Services	Frequency	Percent
Daily	32	14.7
A few times a week	27	12.4
A few times a month	71	32.7
Once a month	71	32.7
Rarely or Never	16	7.4

Modes of Accessing the Library
The participants were requested to specify the modes of accessing the library. Majority of the respondents (n = 190) responded that they usually accessed the library in person. 11 (5.1%) respondents accessed the library online. Eight (3.7%) respondents accessed through Mobile App while seven (3.2 %) respondents used other means to get to the library's resources and services. Table3 reveals the access methods of the library.

Table 3
Access Methods of the Library

Access Methods of the Library	Frequency	Percent
In Person	190	87.6
Online	11	5.1
Mobile App	8	3.7
Other	7	3.2
Total	217	100

Problems in Accessing Required Resources
The participants were requested to identify issues they encountered in accessing necessary resources to fulfill their needs, using a five-point Likert scale ranging from strongly disagree to strongly agree. The top three mean scores were received for the statements "Physical barriers e.g., lack of ramps, elevators, or accessible seating" (Mean = 3.272), "limited availability of materials in accessible formats such as braille, audio, and large-print books" (Mean = 3.27), and "inadequate signage or information for people with disabilities" (Mean = 3.24). The study's results pointed out that respondents encountered various challenges in accessing library materials. Challenges encompass the absence of assistive technology or equipment, copyright limitations on reproducing and downloading materials, digital accessibility concerns about the library's website, overcrowded conditions during peak hours, restricted library operating hours, and unhelpful or misinformed library personnel. The elevated mean score regarding the absence of assistive technology or equipment highlights its significant effect on impaired individuals' access to library resources. Furthermore, concerns regarding digital accessibility and uncooperative library personnel substantially exacerbate the obstacles encountered by persons with disabilities.

Table 4
Descriptive Statistics of the Challenges Faced by PWDs

Challenges Faced by PWDs	Mean	Std. Deviation
Physical barriers (e.g., lack of ramps, elevators, or accessible seating)	3.2719	.94516

Limited availability of materials in accessible formats (e.g., braille, audio, large print)	3.2685	.94605
Inadequate signage or information for people with disabilities	3.2396	.94658
Lack of assistive technology or equipment	3.2269	1.00669
May encounter copyright restriction on copying downloading the materials	3.2120	1.03246
Digital accessibility issues with the library's website or online catalog	3.1797	1.06282
Crowded spaces during peak hours library space can be crowded	3.1152	1.01862
Library hours limited availability of library hours	3.0972	1.00454
Unhelpful or uninformed library staff	3.0231	1.04966

Note: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 =Strongly Agree

Satisfaction level of Persons with Disabilities with Library Resources and Services

The participants were requested to evaluate their satisfaction level using a five-point Likert scale, ranging from strongly dissatisfied to strongly satisfied, in relation to the resources and services provided by the library. Results showed that top 3 mean scores remained for the items, "Satisfied with quite comfortable spaces for reading and studying in the library" (M = 3.63), "Satisfied with availability and accessibility of staff assistance when you require help in using library resources", and "satisfied with library programs and events" (M = 3.55).The average satisfaction level among disabled students regarding the availability of accessible formats for library materials is moderately high, as indicated by the mean score of 3.53. The relatively low standard deviation (0.81096) suggests that the responses are consistent, indicating a consensus among the participants. The average score of 3.47 shows that disabled students are somewhat happy with the library's feedback system. The higher standard deviation (0.94) means that the replies were more spread out, which means that the people who were polled may have had more different perspectives about this issue. On average, disabled students are moderately happy with the library's adaptive technology and equipment. The average score of 3.43 shows that people typically feel good about it. The higher standard deviation (0.94) shows that responses are not always the same, which means that the surveyed students may have different viewpoints on this part. This is similar to the feedback process.Overall, the disabled students generally show moderate satisfaction with the availability of accessible formats for library materials and the library's assistive technology. Table 5 presents a comprehensive overview of the satisfaction levels among persons with disabilities regarding library resources and services.

Table 5

Descriptive Statistics of the Satisfaction level of Persons with Disabilities regarding Library Resources and Services

Satisfaction Level	Mean	Std. Deviation
Satisfied with quite comfortable spaces for reading and studying in the library	3.6528	.66458
Satisfied with availability and accessibility of staff assistance when you require help in using library resources	3.6313	.66842
Satisfied with library programs and events	3.5484	.76298

Satisfied with the availability of accessible formats (e.g., Braille, large print, e-books) for library materials	3.5300	.81096
Satisfied with the feedback mechanism of library	3.4744	.93631
Satisfied with the library's assistive technology and equipment (e.g., screen readers, magnification software, adaptive computers)	3.4332	.93611

Note: 1= Strongly Dissatisfied, 2= Dissatisfied, 3= Neutral, 4= Satisfied, 5= Very Satisfied

Difference Between types of Disabled Users and Resources available in Libraries

To know difference in types of disabled users with different types of library resources availability, a one-way ANOVA test was applied. In the context of hypothesis testing, a significance level (alpha value) is chosen to determine the threshold for statistical significance. A common choice is 0.05. If the p-value obtained from the ANOVA test is less than or equal to the chosen alpha level (e.g., $p \leq 0.05$), then the results are considered statistically significant. This indicates that there is enough evidence to reject the null hypothesis, suggesting that there are significant differences among the groups. If the p-value is greater than the chosen alpha level, typically 0.05, then the results are not considered statistically significant, and there is insufficient evidence to reject the null hypothesis of no significant differences among the groups.

The results indicated that there was significant difference between different types of disabled users with different types of library resources availability. P-value was found to be 0.00. It indicated that different categories of PWDs have challenges getting to different types of library resources.

Table 6

Inferential Statistics for Difference between Different Disabled Users with Their Satisfaction Level with Library Resources and Services

ANOVA to Determine Difference between Different Disabled Users with Satisfaction Level regarding Library's Resources and Services				
SatisfactionAllMean				
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	18.471	4	4.618	11.391	.000
Within Groups	85.938	212	.405		
Total	104.409	216			
(Alpha) value = 0.05*					

Difference between Different Types of Disable Users with Challenges Faced by them in Accessing Library Resources and Services

A one-way ANOVA test was used to find out how different categories of impaired patrons face distinct barriers while trying to access library resources and services. The results showed that there wasn't a big difference between the different sorts of disabled users who were having trouble getting to the library's resources and services. The P-value was determined to be 0.65. It indicated that different disabled people had similar problems getting to the library's materials and services because of their disabilities. Table 4.19 highlights the distinctions between different impaired users and the problems they have when trying to get to library resources and services.

Table 7

Inferential Statistics for Difference between Different Disabled Users and challenges faced by them in accessing Library Resources and Services

ANOVA to Determine Difference between Different Disabled Users and Challenges in Accessing Library Resources and Service

ChallengesAllMean

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.920	4	.480	.613	.654
Within Groups	165.953	212	.783		
Total	167.872	216			
(Alpha) value = 0.05*					

Discussion

Persons with Disabilities (PWDs) encounter challenges in academic institutions while accessing library resources and services. The study's findings uncovered a number of notable obstacles encountered by librarians in meeting the needs of PWDs. They encounter numerous obstacles because of their disability. University libraries ought to offer services tailored to the special requirements of PWDs. Libraries offer several sorts of accessible materials for PWDs, tailored to their personal needs; for instance, those who are visually impaired may choose large print books, braille materials, audiobooks, and electronic resources. The findings highlighted the challenges encountered in accessing library resources and services by PWDs. Physical barriers e.g., lack of ramps, elevators, or accessible seating ranked high in challenges faced by PWDs; these challenges affect the PWDs ability to use the library resources and services.The findings suggested that the satisfaction of PWDs with library resources and services is dependent on the availability of quiet space for study within the library. Accessibility of library staff is vital for people with disabilities to have a positive experience in libraries. Findings suggested that the staff at the library affect the amount of satisfaction that PWDs have with their library visit.Library programs and events offer PWDs the opportunity to participate in a positive educational experience. The objective of inclusive programming is to improve the educational experience of persons with disabilities and promote their participation in a variety of educational training seminars and activities. It demonstrates that they are not a marginalized group within society.Accessibility of library materials for PWDs is an essential component of a library. PWDs expressed significant contentment with the accessibility of library resources, including braille books; audio books, large print books, and screen readers. Digital libraries that house e-books give people with disabilities the chance to take part in educational activities. The results showed that people with disabilities were always happy with the library's feedback system.

The study's results show that libraries may be better places for people with disabilities if they teach librarians properly. One of the biggest problems for persons with disabilities is that there are not enough sign language interpreters, which makes it hard for deaf or hard-of-hearing people to go around. Users who are deaf or hard of hearing can use the library without any problems because it offers sign languages. Majority of PWDs are not satisfied with library resources and services provided by the universities. Visually impaired users, including partially sighted elderly readers and those facing other reading difficulties, are offered services such as text-to-speech, text enlargement, and color contrast adjustments, thereby enhancing accessibility and ensuring a more comfortable educational experience.

The results pose yet another substantial challenge: distinguishing between digital and printed materials to ascertain whether to choose for the digital format or the print format. Most people with disabilities PWDs prefer print formats, including braille books and big print books, over digital ones. Librarians should help these people use digital resources. People with disabilities PWDs have a lot of trouble getting resources in formats that are easy for them to use, like screen readers, magnifiers, Braille books, big-print books, audiobooks, and digital resources. Libraries need to have resources that are easy for people with disabilities to use. The study stressed program ideas that libraries should use to meet the needs of people with disabilities, even though there were some problems. By providing training in assistive technology, developing staff, allocating resources, and constructing portions to remove accessibility obstacles for PWDs. The research stressed the need of teaching people with disabilities how to use library

resources. People with disabilities have a lot of trouble using library resources, thus training is quite important.The aforementioned findings align with the results of the studies done by Kotso and Mohammed, 2011; Ahmed et al., 2011; Ayoung et al., 2021; Nazim et al., 2021; Williams-Ilemobola et al., 2022; Moriña, 2017; Khot et al., 2022; Khalid and Yaseen, 2023; Alomari et al., 2023; Kinnell and Creaser, 2001and Zia and Fatima, 2011.

Conclusion

University libraries are places where people can learn and get help with their schoolwork, including people with disabilities. Many university libraries have digital materials that may be used offline, like CDs, USB drives, and other types. These resources are necessary and meet the academic needs of PWDs. Most people with disabilities are not happy with the libraries and services that universities offer. others who are blind or have low vision, such as older readers who can only see a little bit and others who have trouble reading for other reasons, can use features like text-to-speech, text enlargement, and color contrast adjustments. This makes the experience more accessible and comfortable for everyone. Because assistive technology don't work with university library systems, people with disabilities have trouble getting to library materials and services. Older software, databases that are hard to get to, and poorly designed digital interfaces frequently make it hard for people with disabilities to get to educational content. Teaching accessibility in university libraries can enable people with disabilities use digital resources and services, which will let them read academic publications on their own. The lack of funds is a big problem for making libraries more accessible since it stops them from buying assistive equipment, fixing up their buildings, and teaching their staff how to be more inclusive.

Recommendations

1. The library administration must be aware of the latest resources and services, offering assistance on their use to ensure that persons with disabilities are satisfied with university libraries.
2. Assistive technology may be modified and enhanced for persons with disabilities.
3. University libraries in Pakistan ought to structure their services in accordance with IFLA and UNESCO recommendations for persons with disabilities.
4. University libraries should conduct orientation courses for persons with disabilities PWDs. These sessions may consist of training workshops that inform persons with disabilities about the resources and services provided by the library.
5. Prioritize universal accessibility in the service development plan.
6. The library's physical design may incorporate lifts, elevators, and ramps to facilitate access for persons with disabilities PWDs.
7. To establish objectives for enhancing services, obtaining dependable input from persons with disabilities PWDs is essential. This will assist in identifying their needs and the potential utilization of specialized services.

References

Ahmed, N., Shaikh, S. A., Riaz, A., Midhet, F., & Zia, N. (2023). Public sector rehabilitation services for physical disabilities in tertiary care hospitals of Karachi, Pakistan: A qualitative study. *Injury*, *54*, 110798. https://doi.org/10.1016/j.injury.2023.05.029

Al Alawi, G. S. N., & Crisostomo, A. S. I. (2024). Local Awareness and Satisfaction on Sustainable Projects for People with Disabilities. International Journal of Research in Entrepreneurship & Business Studies, 5(1), 1–14. https://doi.org/10.47259/ijrebs.511

Al-Rashaida, M., López-Paz, J. F., Amayra, I., Lázaro, E., Martínez, O., Berrocoso, S., García, M., & Pérez, M. (2018). Factors affecting the satisfaction of people with disabilities in relation to vocational rehabilitation programs: A literature review. Journal of Vocational Rehabilitation, 49(1), 97–115. https://doi.org/10.3233/JVR-180957

Bashir, F., Soroya, S. H., & Khanum, A. (2018). Users' Satisfaction as a Valid Measure for Information

Resources: A Case of Public Libraries. Journal of Library Administration, *58*(3), 302–312. https://doi.org/10.1080/01930826.2018.1436799

Couto, G. R., Fonseca, E. P., & Do Amaral, R. C. (2022). Level of Satisfaction and Quality of Life of Caregivers of People with Disabilities in Secondary Dental Care. Pesquisa Brasileira Em Odontopediatria e Clinica Integrada, 22, 1–10.

Dimitriadis, S. G., Vrana, V., Dimitriou, S., Kalaitzis, V., & Drogalas, G. (2013). Investigating customer satisfaction and service quality in academic libraries: the case of Technological Educational Institute of Central Macedonia. International Journal of Decision Sciences, Risk and Management, 5(2), 161. https://doi.org/10.1504/ijdsrm.2013.058900

Grassi, R. (2018). Building inclusive communities: teens with disabilities in libraries. *Reference Services Review*, *46*(3), 364-378. https://doi.org/10.1108/RSR-03-2018-0031

Khalıd, U., & Yaseen, M. (2023). Social Protection for Persons with Disabilities in Pakistan: Current Scenario and Contribution of BISP. *Ahi Evran Akademi*, *4*(1), 75-93.

Khot, N., Hujare, P. P., & Killedar, S. A. (2022). Library Services Provided to Persons with Disabilities by Colleges Affiliated to Shivaji University Kolhapur. *International Journal of Research in Library Science*, *8*(2), 85. https://doi.org/10.26761/ijrls.8.2.2022.1534

Kotso, J. A., & Mohammed, Z. (2011). Users Satisfaction with Library and Information Service in Plateau State Special Education Institution. The Information Manager, 11(2), 2011.

Moriña, A. (2017). 'We aren't heroes, we're survivors': higher education as an opportunity for students with disabilities to reinvent an identity. *Journal of Further and Higher Education*, *41*(2), 215-226.

Malik, A., Pervez, R., Nayab, G., Naseem, N., Awan, Z., Ahmed, A., ... & Ibrar, M. (2023). Stuttering As a Disability in Pakistan; Policies and Its Implementation. *Pakistan Journal Of Neurological Surgery*, *27*(2), 232-243.

Mugo, G. W., & Mathu, M. (2021). Assessment of Customer Service Provision for Enhanced User Satisfaction in Academic Libraries: A Case Study of St Paul's University Library, Kiambu County, Kenya. International Journal of Current Aspects, 5(1), 20–34. https://doi.org/10.35942/ijcab.v5i1.155

Nazim, M., Beg, A., & Sarkar, M. (2021). Access to library facilities and services for users with disabilities: a study of Aligarh Muslim University in India. Journal of Access Services, 18(1), 30–49. https://doi.org/10.1080/15367967.2020.1870120

Senjam, S. S., Manna, S., Titiyal, J. S., Kumar, A., & Kishore, J. (2025). User satisfaction and dissatisfaction with assistive technology devices and services in India. Scientific Reports, 15(1), 1–10. https://doi.org/10.1038/s41598-024-82160-w

Williams-Ilemobola, O. B., Adetayo, A. J., Buhari, G. I., & Omorinkoba, O. G. (2022). Information Seeking Behavior and Use of Library Services by Disabled Students in Federal Universities in South-West, Nigeria. International Information and Library Review, 0(0), 1–10. https://doi.org/10.1080/10572317.2022.2074718

Yadav, A., & Arora, M. (2019). Library services for divyangjan in the national institute for the empowerment of persons with intellectual disabilities. *International Information & Library Review*, *51*(1), 70-74.