



DEPARTMENT OF LIBRARY AND INFORMATION SCIENCES
KHUSHAL KHAN KHATTAK UNIVERSITY, KARAK

Journal of Information Management and
Library Studies
ISSN 2708-6089

Vol. 7, issue.1,2024

Date of Acceptance: 14 Dec, 2024
Date of Publication: 24 Dec, 2024

Inclusive Library Resources and Services for Persons with Disabilities In University Libraries of Pakistan

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Abstract

Purpose: The objectives of the study were to identify the library resources and services available for Persons with Disabilities (PWDs) in university libraries of Pakistan, and to determine the challenges that librarians face while providing library services to PWDs.

Methodology/approach/design: Quantitative research approach followed by a survey design was applied to meet the study's objectives. The questionnaire was employed to gather the required data. The collected data were analyzed using SPSS software.

Findings: The Findings of the study manifested that libraries play a crucial role in meeting the diverse information needs of PWDs. The study shows that while libraries excel in offering various resources and services such as accessible entrances, adjustable furniture, and online digital resources, there are areas needing improvement to better support disabled patrons. The findings offer significant insights into the numerous challenges faced by librarians in establishing an inclusive environment for PWDs. Addressing these challenges requires a comprehensive approach, encompassing continuous training, improved funding, technological integration, and heightened awareness among library staff to better serve the diverse needs of PWDs.

Conclusion: This research study provides information regarding the library resources and services offered to PWDs users by HEC-recognized public and private universities in Pakistan. Some libraries offer exemplary services for PWDs, whereas the majority lack fundamental facilities and services. All services offered to PWDs users are identical to those provided to normal visitors of the library. The role of libraries in delivering equitable library services is still in its early stages in the Pakistani setting, but it should not be underestimated or overlooked because PWDs are a big and dynamic part of any society. **Originality:** The study has added valuable literature to the existing body of knowledge. It has also offered practical solutions to address the information and research needs of persons with disabilities in university libraries in Pakistan.

Keywords: Persons with Disabilities; PWDs; Library services; resources; disabilities; disabled users; university libraries; Pakistan

Introduction

The provision of services to Persons with Disabilities (PWDs) is not a novel concept for libraries; yet, the ever-evolving requirements of society necessitate adopting a fresh strategy when dealing with this particular stakeholder group and determining how best to improve services.(Kulikauskienė & Liukinevičienė, 2020). Equal access to all of the stored information and knowledge that is available is one of the primary goals of librarianship. Ensuring equitable access to available resources is vital for the entire community. In order to ensure equal opportunities for PWDs, it is necessary to assess the condition of library properties, resources, collections, and services from the perspective of various user groups.(Nazim et al., 2021) PWDs experiences are often overlooked in developing countries. PWDs confront prejudice and injustice in various areas of life, including the access to information. (Awais & Ameen, 2015).

Libraries play a vital role in providing residents with the chance to gain knowledge, information, and education. PWDs have many obstacles when trying to obtain books from traditional bookstores, such as inadequate physical accessibility to the stores and a shortage of books in accessible formats like Braille .PWDs face varying degrees of difficulties in accessing libraries and utilizing the resources they offer, depending on the type and severity of their impairments. They cannot visit libraries due to the inaccessibility of the structures. (Nazim et al., 2021).

Disabled students' involvement in higher education is crucial for ensuring equitable opportunities and fostering empowerment. The enactment of recent legislation has brought the problem of including impaired students to the forefront of discussion. Nevertheless, despite the increasing attention towards matters of inclusivity, the perspectives of PWDs themselves have been largely disregarded. (Fuller et al., 2004) Higher education institutes (HEIs) enroll students

from various socio-cultural and educational backgrounds. In addition, they integrate PWDs into regular classrooms. This presents a significant obstacle for instructors, since they must be cognizant of the unique characteristics of their learners and guarantee that no nobody is overlooked. The difficulty of accepting variety is heightened by the concept of 'inclusion'. (Beyene et al., 2023).

Statement of the Problem

Persons with disabilities (PWDs) require information and research needs, which are as important as those of any other library users. Libraries play an essential role in empowering PWDs for becoming productive members of society by satisfying their specific information and research needs through inclusive and value-added services. Effective and efficient library services can significantly enhance the self-efficacy of PWDs. The provision of innovative library services enables them to achieve their academic and personal goals without facing further hurdles.

This study seeks to evaluate the availability and inclusivity of library resources and services for PWDs in university libraries across Pakistan. Guided by the standards of the International Federation of Library Associations and Institutions (IFLA) and the American Library Association (ALA), it aims to examine the current state of library services accessible to PWDs, assess the availability of specialized resources tailored to the needs of PWDs,, identify barriers faced by library professionals and administrators in providing inclusive services and reveal gaps and deficiencies in existing library services for PWDs.

The findings of this study will provide valuable insights into the status of inclusive library practices in Pakistan. The study will show the areas that require improvement and offer a roadmap for designing effective services that support the diverse needs of PWDs. By addressing these challenges, university libraries can offer a more inclusive environment to the persons with disabilities aligned with global best practices.

Objectives of the Study

- i. To identify the library resources and services available for the PWDs in university libraries of Pakistan.
- ii. To identify the challenges faced by librarians while providing library services to PWDs.

Literature Review

Awais & Ameen, (2015) probed the issue of disabled students' access to information and employed interviews as a qualitative data gathering strategy for the analysis of the library services offered to students with disabilities. The findings showed that students with disabilities rarely had access to library services for information; instead, they mostly relied on their parents and teachers. Igwebuiké & Agbo, (2015) indicated that in order to meet their information needs, users visit the library and access its resources and services. This is referred to as library use. Any type of library users who use the library frequently leave behind certain indications that the user is effective in using the library's resources and accepts the full range of service offerings, media formats, and physical access to stuff of want in the library. The individuals with physical disabilities need a specially structured approach for their proper communication with the rest of society but these were not provided. Kaeding et al., (2017) noted the issues that affect disabled children and their families in getting access to public libraries. Public librarians in the US and Canada who were providing services to the PWDs were chosen for the study. From the results six elements were found which are collections, physical barriers (space and equipment), partnerships, programmes, training and marketing.

He proposed inclusive library model based on above elements. Onsinyo, (2018) highlighted the challenges faced by PWDs while getting access to library services in university libraries of Kenya. The study findings strongly supported the hypothesis that the provision of library and information services to students with disabilities in the four libraries was largely characterized by a combination of the absence of specialized library and information services, a

lack of assistive technology, staff incapacity, structural deficiencies, and a lack of internally developed compliance with national and international policy frameworks. Chandrakanth & Reddy, (2019) explored the effort has been made to research the accessibility features offered to PWDs in a few of Karnataka's university libraries. So that they can attend the Library and utilize the facilities on equality with abled users, certain university libraries in Karnataka took initiatives to give suitable exclusive alternatives. Physical access has been made available in some libraries in terms of parking spaces, clear walkways for pedestrians, circulation desk accessibility, accessible furniture, restrooms, etc. Kulikauskienė & Liukinevičienė, (2020) discussed that the changing requirements of society and library participants, who also decide how important it is for libraries to emphasize their social roles, can determine the importance of an inclusive library. He presented inclusive library model for better promotion of library services. Eneya et al., (2021) stressed out academic libraries to critically reevaluate their contribution to creating inclusive universities where everyone, whether they are disabled or not, have the same chance to fully engage in the educational process at universities. In terms of social repercussions, everyone in society, including those with disabilities, must have access to any form of knowledge because it is a fundamental human right.

Libraries must promote this idea as inclusive societies. To make this a reality, access impediments must be identified and eliminated as the social model of disability requires. Williams-Ilemobola et al., (2022) investigated Federal universities in South-West Nigeria; they looked at how information-seeking behavior affected the library services used by PWDs. According to the research, advisory, counseling, and consultative services were the most prevalent. User education and consulting services were the two most popular offerings. The majority of the respondents' information-seeking behavior is focused on finding health-related material and obtaining it from an online library. The study concluded that impaired students'

utilization of library services was influenced by their information-seeking behavior. The study advised library administration to offer additional health-related resources, particularly in electronic format. Beyene et al., (2023) stated that physical participation of students with disabilities in regular classrooms is not enough to achieve inclusive education. It necessitates removing all kinds of impediments to fair access to education. He described the difficulties in getting hold of educational resources in the context of an Ethiopian HEI. The digital gap, a lack of educational resources in alternate forms, the absence of an organized and thorough policy for addressing the requirements of students with disabilities, as well as several other institutional flaws, were all noted as issues.

Research Methodology

Research Design

This study adopted a quantitative research approach, aligning with the objectives and research questions. Quantitative research involves the collection and analysis of numerical data to explain events and identify patterns using mathematical methods (Watson, 2015). A survey research design was applied, as it is particularly effective for gathering data in specific contexts and generating insights applicable to the target population (Williams & Babbie, 1976).

Population and Sampling

The study's population consisted of librarians, including chief librarians, assistant librarians, senior librarians, and deputy librarians, working in public and private sector universities recognized by the Higher Education Commission (HEC) of Pakistan. An updated list of these universities was obtained from the HEC website in July 2023. According to the website of HEC Pakistan, there were 225 recognized universities in Pakistan. There were 964 librarians employed at university libraries, according to the Directory of University Librarians, Sada-e-Librarian Directory of Pakistani Librarians, and Directory of Library Professionals. The main sources to determine the number of librarians having at least master level degree were the university libraries with updated websites and professional

directories of librarians. The sample was selected using a simple random sampling technique, with randomization achieved through a computer-generated list; questionnaire was sent to 270 librarians out of which 191 responses received. The final sample comprised on 191 librarians representing various university libraries across Pakistan.

Data Collection Instrument

A questionnaire was developed as the primary data collection tool. The questionnaire was designed following a thorough review of the literature and in consultation with the International Federation of Library Associations and Institutions (IFLA) checklist and the American Library Association (ALA) guidelines for serving PWDs. The instrument was modified to gather information on library resources and services for PWDs, as well as the challenges faced by library professionals in providing inclusive services.

Validity and Reliability of the Questionnaire

The questionnaire was sent to a panel of expert for expert review. Required modifications were done to refine the tool as per instructions of the reviewers. Validity of the questionnaire was checked through exploratory factor analysis (EFA) test. Exploratory Factor Analysis (EFA) is a statistical method used to show the underlying structure of a set of observed variables. It is commonly applied in social science research to assess the validity of a questionnaire by identifying the latent constructs (factors) that the questionnaire items measure. EFA helps ensure that the items group together in meaningful ways, representing distinct dimensions of the concept being studied. Results of the EFA showed that output of KMO and Bartlett 0.873 which is greater than 0.80. It shows that range of factor analysis test is meritorious. For knowing reliability between the questionnaire items, Cronbach's Alpha test was conducted. Statistical Package for Social Sciences (SPSS) Software was used to enter the responses received from the respondents of the pilot study. All values remained between 0.71 to 0.89. Results of pilot study confirmed reliability of the instrument of questionnaire for the collection of

quantitative data.

Survey Administration and Response Rate

The survey was administered to central libraries of universities recognized by the HEC. Over a four-month period, 191 required responses as per sample were received. The response rate was valid to execute the analysis.

Results

Demographic Information of the Respondents

The study's outcomes revealed a predominantly male representation among participants, with 164 (85.86%) identifying as male, while 27 (14.14%) identified as female.

In terms of age distribution, the majority of respondents, 120 (63%), fell within the age range of 36-40. Following this group, 34 respondents (17.81%) were aged 31-35, 22 (11.52%) were over 40, 13 (6.81%) fell between 26-30, and only 2 (1.05%) were in the 20-25 age bracket.

Regarding educational qualifications, a significant portion of respondents, 140 (73.3%), held M. Phil./MS degrees. Additionally, 39 (20.42%) possessed master's degrees in LIS, while 7 (3.7%) held Ph.D. degrees, and 5 (2.62%) had BS degrees in Library and Information Science. These findings suggest a solid foundation of formal education in library science among participants. In terms of the employment sector, a majority of participants, 145 (75.92%), were employed in public sector universities, while 46 (24.08%) worked in private sector universities. Professional job experience varied among respondents, with the majority, 132 (69.11%), having 11-15 years of experience. Additionally, 20 (10.47%) had 6-10 years of experience, 14 (7.33%) had 16-20 years, 13 (6.81%) had 1-5 years, and 12 (6.23%) had over 20 years of experience.

Regarding job designation, the majority, 120 (62.83%), held positions as Librarians, followed by 31 (16.23%) as Assistant Librarians, 19 (9.95%) as Deputy Chief Librarians, 14 (7.33%) as Senior Librarians, and 7 (3.66%) as Deputy Librarians. Table 1 illustrates demographic results of the study.

Table 1: Descriptive Analysis of Demographic Information of Respondents (N=191)

Variables	F	%
Gender		
Male	164	85.86
Female	27	14.14
Age (years)		
20-25	2	1.05
26-30	13	6.81
31-35	34	17.81
36-40	120	63
>40	22	11.52
Qualification		
BS LIS	5	2.62
MLIS	39	20.42
M Phil/MS	140	73.3
Ph. D.	7	3.7
Type of Institute		
Private Sector	145	75.92
Public Sector	46	24.08
Experience		
1-5	13	6.81
6-10	20	10.47
11-15	132	69.11
16-20	14	7.33
Over 20	12	6.23
Designation		
Assistant Librarian	31	16.23
Librarian	120	62.83
Senior Librarian	14	7.33
Deputy Librarian	7	3.66
Deputy Chief Librarian	19	9.95

Types of Users with Disabilities

A total of 191 librarians participated in the survey. They were requested to mention the types of users with disability that their library facilitated. The respondents mentioned that 83 (43.5%) had physical impairment, 49 (25.7%) were with learning disabilities, and 26 (13.6%) were with hearing impairment. 23 (12%) users had visual impairment while 10 (5.2%) users were with cognitive/mental disabilities.

Table 2 displays the types of users with disabilities that the library facilitated.

Table 2: *Types of Users with Disabilities*

Type of Disability	Frequency	Percent
Visual impairment	23	12.0
Hearing impairment	26	13.6
Physical impairment	83	43.5
Learning disabilities	49	25.7
Cognitive/Mental disabilities	10	5.2
Total	191	100.0

Types of Library Resources Availability

The respondents were asked to mention the types of library services being offered in their libraries for PWDs on a five-point Likert scale i.e. 1: Not Available, 2: Limited Availability, 3: Partially Available, 4: Mostly Available, 5: Fully Available. The top three mean scores remained for the statements, “offline digital resources” (M = 4.12, S.D., 1.089); “accessible entrance for disabled” (M = 4.16, S.D. = 1.170), “Easy-to-read books” (M = 4.28, S.D. = 1.042).

The majority of the libraries did not have the availability of lift/elevator in libraries (Mean = 1.51, Std. Dev. = 1.172). It suggests improvement in providing accessible lifts or elevators. Consequently, the majority of libraries also did not have pictogram signs leading to elevators (Mean = 1.58, Std. Dev. = 1.194). Most of the libraries did not have a restroom for the disabled students (Mean = 1.74, Std. Dev. = 1.320). It suggests a need for improvement in providing restrooms for disabled individuals.

A good number of libraries had the availability of wheelchairs for the disabled users (Mean = 2.00, Std. Dev. =

1.298). It indicates a moderate availability of wheelchairs for supporting the visually impaired person in regards to access towards required information resources. Most of the libraries did not have tactile picture books (Mean = 1.83, Std. Dev. = 0.986). It indicates room for improvement in providing tactile picture books to the disabled students. A satisfactory number of libraries had the availability of video/DVD books with subtitles and/or sign language (Mean = 1.89, Std. Dev. = 1.084). It indicates a moderate availability. The respondents showed moderate availability of the adaptive keyboards in their libraries to support the disabled persons (Mean = 2.07, Std. Dev. = 1.166). It signifies a moderate availability of adaptive keyboards. A moderate number of libraries had the provision of induction loop assistive listening devices (Mean = 2.36, Std. Dev. = 1.313), talking material (Mean = 2.65, Std. Dev. = 1.383), and computers for specialized users (Mean = 2.81, Std. Dev. = 1.420).

Majority of the libraries had the availability of online digital resources (Mean = 4.00, Std. Dev. = 1.089), adjustable furniture (Mean = 4.01, Std. Dev. = 1.170) to address different educational needs of the disabled persons. A good number of libraries also had toilets for PWDs (Mean = 3.65, Std. Dev. = 1.383), braille books (Mean = 3.66, Std. Dev. = 1.378), large print books (Mean = 3.83, Std. Dev. = 1.319), and transportation for disabled (Mean = 3.76, Std. Dev. = 1.362).

Table 3 shows the types of library resources available in the respondents' libraries.

Table 3: *Types of Library Resources Availability*

Types of Library Resources Availability	Mean	Std. Deviation
Availability of lift/ Elevator	1.51	1.172
Pictogram signs leading to elevators	1.58	1.194
Rest room for disabled	1.74	1.320
Tactile picture books	1.83	.986
Video/DVD books with subtitles and/or sign language	1.89	1.084

Wheelchairs availability	2.00	1.298
Adaptive keyboards	2.07	1.166
Induction loop Assistive listening devices	2.36	1.313
Talking material (e.g books, talking newspapers, and talking periodicals)	2.65	1.383
Computers for Specialized User	2.81	1.420
Toilets for disabled	3.65	1.383
Braille books	3.66	1.378
Transportation for disabled	3.76	1.362
Large print books	3.83	1.319
Online Digital Resources	4.00	1.089
Adjustable Furniture	4.01	1.170
Offline digital resources	4.12	1.089
Accessible entrance for Disabled	4.16	1.170
Easy-to-read books	4.28	1.042

Note: 1 = Not Available, 2 = Limited Availability, 3 = Partially Available, 4 = Mostly Available, 5 = Fully Available

Types of Library Services Available to Persons with Disabilities (PWDs)

The librarians were requested to submit their responses regarding the types of services being provided to persons with disabilities on a five point Likert scale i.e. 1: Not available, 2: Limited availability, 3: Partially available, 4: Mostly available, 5: Fully available.

Majority of the libraries had the availability of photocopy/scanning facility (Mean: 4.4421, SD: 0.77958). The high mean score suggests that the photocopy/scanning facility is well received among PWDs. PWDs generally appreciate the availability of drinking water within reach (Mean: 4.3053, SD: 0.88579). Most of the libraries also had the provision of logical and easy to navigate website to support the disabled users (Mean: 3.9526, SD: 1.20091). Most of the libraries addressed queries of PWDs through email/SMS services (Mean: 3.9476, SD: 1.16410). The mean score indicates a generally positive perception of email/SMS services. Several libraries also provided drop box facility to support the disabled users (Mean: 3.2042, SD: 1.37847). A

good number of libraries were also offering patrons request books in alternative formats (Mean: 2.5368, SD: 1.46790) and home delivery services (Mean: 2.46, SD: 1.268).

The findings show the varying degrees of accessibility and support provided by libraries to PWDs. Notably, the availability of a photocopy/scanning facility received a high mean score, suggesting that this service is well received among PWDs. Similarly, the provision of drinking water within reach is generally appreciated by PWDs, as indicated by a positive mean score. Moreover, the majority of libraries strive to enhance accessibility through a logical and easy-to-navigate website, although the relatively high standard deviation suggests some diversity in opinions regarding the effectiveness of this service.

Libraries address queries from PWDs through email/SMS services, with a generally positive perception reflected in the mean score. The availability of a drop box facility is also notable, although the standard deviation indicates a more varied response. Furthermore, the datasets indicate that while a good number of libraries offer patrons the option to request books in alternative formats, there is room for improvement, as reflected in the relatively lower mean score. Similarly, home delivery services for PWDs receive a moderate mean score, suggesting that this service is perceived with a mix of opinions.

Table 4 shows the types of services available to persons with disabilities (PWDs).

Table 4: Types of Services Available to Persons with Disabilities (PWDs)

Types of Services Available to Persons with Disabilities	Mean	Std. Deviation
Photocopy/scanning facility	4.4421	.77958
Drinking water under reach	4.3053	.88579
Logical and easy to navigate website	3.9526	1.20091
Email/SMS services	3.9476	1.16410
Drop box facility	3.2042	1.37847

Patrons request books in alternative formats (e.g., Braille, audio) 2.5368 1.46790

Home delivery service 2.46 1.268

Note: 1 = Not Available, 2 = Limited Availability, 3 = Partially Available, 4 = Mostly Available, 5 = Fully Available

Challenges Faced by Librarians

The respondents were asked to mention challenges they faced in accommodating the needs of PWDs. Findings of the study showed that top three mean scores remained for the statements: “providing ongoing training to librarians and staff on assistive technology and disability awareness (Mean: 3.8691, S.D. 0.45727), “Lack of sign language interpreters or alternative communication methods (Mean: 3.8639, S.D.:0.46147), and “ensuring that patrons with disabilities are aware of the available services and accommodations” (Mean: 3.8482, S.D.: 0.48448). Most of the respondents mentioned that they found it difficult to differentiate between print and digital resources to facilitate the PWDs. They couldn’t decide easily as which resources should be acquired in physical form and which information resources should be managed in digital form to address the information needs of the PWDs.

Findings provide valuable insights into the multifaceted challenges faced by librarians in creating an inclusive environment for PWDs. Addressing these challenges requires a comprehensive approach, encompassing continuous training, improved funding, technological integration, and heightened awareness among library staff to better serve the diverse needs of PWDs.

Table 5: Challenges Faced by Librarians

Challenges Faced by Librarians	Mean	Std. Deviation
Providing ongoing training to librarians and staff on assistive technology and disability awareness	3.8691	.45727
Lack of sign language interpreters or alternative communication methods	3.8639	.46147

Ensuring that patrons with disabilities are aware of the available services and accommodations.	3.8482	.48448
Deciding on resource allocation between physical and digital accessibility improvements	3.8368	.44805
Limited Funding/ insufficient Budget	3.8272	.52964
Compatibility issues between assistive technology used by patrons and library systems or software.	3.8010	.55460
Sourcing and maintaining diverse collections that cater to various disabilities, including braille, large print, and accessible digital formats	3.8010	.50492
Library buildings may not be fully accessible, with issues related to ramps, elevators, and restroom facilities	3.6911	.71368
Low awareness among library staff about the specific needs and challenges of patrons with disabilities.	3.6440	.75321

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

Difference between Male and Female Librarians with Challenges being Faced in Providing Required Library Resources and Services to Disabled Used

To know difference in male and female respondents in regards to challenges being faced to deliver required information resources and services to disabled library patrons, an Independent Sample T Test was applied. The results displayed that there was not a significant difference between male and female librarians regarding challenges to provide required library resources and services to end users. P value was found 0.976. It showed that male and female librarians faced similar barriers in satisfying information and research needs of different types of disabled library users. Table 6 shows difference between different male and female librarians regarding challenges being faced by them

in the provision of required information based resources and services to different disabled users.

Table 6: Inferential Statistics for Difference between Male and Female Librarians Regarding Challenges to Provide Information Based Services to Disabled Users

Independent Sample T Test		F	Sig.	t	df	Sig. (2-tailed)
Challenges Equal	variances	.035	.852	-.031	189	.976
All	assumed					
	Equal variances			-.030	62.245	.976
	not assumed					

(Alpha) value = 0.05*

Difference between Respondents' Positions/Designations with Challenges being Faced in Providing Required Library Resources and Services to Disabled Used

To know difference in respondents' different positions and challenges being faced to deliver required information resources and services to disabled library patrons, an ANOVA Test was applied. The results displayed that there was not a significant difference between respondents' different positions and challenges to provide required library resources and services to end users. P value was found 0.946. It showed that library professionals of all cadre faced similar barriers in satisfying information and research needs of different types of disabled library users. Table 7 shows difference between the respondents' positions and challenges being faced by them in the provision of required information based resources and services to different disabled users.

Table 7: *Inferential Statistics for Difference between Librarians’ Positions Regarding Challenges to Provide Information Based Services to Disabled Users*

ANOVA to Determine Difference between Librarians’ Positions Regarding Challenges to Provide Information Based Services to Disabled Users

ChallengesAll					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	.119	4	.030	.185	.946
Within Groups	29.844	186	.160		
Total	29.962	190			

(Alpha) value = 0.05*

Discussion

Library resources and services play an important role in satisfying different information needs for persons with disabilities (PWDs). These individuals often face unique challenges in accessing information and educational materials due to physical impairments. Libraries play a significant role through the provision of need-based resources to PWDs effectively and efficiently. PWDs library patrons usually prefer accessible formats such as large print books, audiobooks, braille materials, and electronic texts to engage with information resources efficiently. Specialized equipment such as screen readers, magnifiers, and adaptive technologies enhance the accessibility of digital resources for PWDs. Libraries offer assistive services like sign language interpreters, accessible facilities, and trained staff to assist PWDs. Librarians need to carry out supportive services to facilitate PWDs users to pursue academic pursuits to become valuable members of society. The findings of the study revealed that libraries offered different types of resources to PWDs. In regards to some resources, libraries had strengths however some areas required improvement. Most of the libraries provided offline digital resources, accessible entrances, and easy-to-read books to support disabled library patrons. It shows a

proactive approach by libraries in satisfying the information needs of PWDs. The majority of libraries demonstrated strong support through the provision of online digital resources, adjustable furniture, and toilets for PWDs, braille books, large print books, and transportation services. These efforts reflect a commitment in promoting equal access to information and educational opportunities for all members of society. The above findings are similar to the results of the studies concluded by Igwebuike & Agbo, 2015; Kaeding et al., 2017; Onsinyo, 2018; Chandrakanth & Reddy, 2019; Ilemobola & Unegbu, 2021; Eneya et al., 2021 and Beyene et al., 2023.

Conclusion

This study aims to raise awareness on the accessibility of library resources and services for PWDs, ensuring that these concerns addressed on significant platforms and communicated to stakeholders. The survey conducted reveals that PWDs users of academic libraries are excluded from the decision making process of the library. This research study provides information regarding the library resources and services offered to PWDs users by HEC-recognized public and private universities in Pakistan. Some libraries offer exemplary services for PWDs, whereas the majority lack fundamental facilities and services. All services offered to PWDs users are identical to those provided to normal visitors of the library. The role of libraries in delivering equitable library services is still in its early stages in the Pakistani setting, but it should not be underestimated or overlooked because PWDs are a big and dynamic part of any society.

Recommendations

In light of the findings of the current study, the following recommendations have been proposed for the subsequent application of the findings.

1. The Higher Education Commission (HEC) should create a PWD-friendly information infrastructure.
2. Persons with disabilities (PWDs) should be treated in the same manner as the rest of the population.
3. The study's findings unequivocally demonstrate that

PWDs are not reaping the advantages of the present-day revolution in technology. The library authorities and the university management must ensure that disabled students are not excluded from taking advantage of the new technology.

4. Current library resources and services should be revamped and adapted with cutting edge technologies to facilitate the seamless and efficient utilization of library resources by PWDs.

5. There should be no discrimination against anyone when it comes to providing access to all library materials, and the administration of the universities should make sure that this does not happen.

6. Concrete steps must be implemented to ensure financial allocation, create library spaces with ramps and provide lifts, obtain Braille and big print materials, and provide assistive devices.

7. The library must obtain additional up-to-date and pertinent information resources and perks, while giving guidance on how to effectively utilize these facilities in order to enhance satisfaction of PWDs.

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