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# **Users' Satisfaction with Library Resources and Services in Health Sciences Institutes in Punjab, Pakistan**

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## **Users' Satisfaction with Library Resources and Services in Health Sciences Institutes in Punjab, Pakistan**

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### **Abstract**

The present study aimed to explore users' satisfaction with library resources and services in health sciences institutes in Punjab, Pakistan. The study employed the quantitative research method to achieve its objectives. The quantitative data were collected from users of four selected health sciences institute libraries through the questionnaire.

The findings of the study suggest that the majority of participants were satisfied with the library environment (furniture, heating/cooling, noise level, lights and cleanliness). Whereas, most of the respondents did not give opinion about adequacy of space for study and research provided by the libraries. The respondents were satisfied with the courtesy, helpfulness, knowledgeable and competency of library staff. The respondents were also satisfied with organization of library collections.

The findings of the study will help library administrators in identifying users' expectations and needs, and improving resources and services in the health sciences institute libraries included in the study in line with users' requirements.

**Keywords:** Users' satisfaction, library resources, library services, health sciences institutes, libraries, Punjab, Pakistan

## 1. Introduction

Health sciences institutes provide health care education and their vital role is to contribute to development and progress of the country. Therefore, the library of a health sciences institute needs to be an excellent assortment of information resources. The main purpose of a health sciences institute library is to fulfill its users' information needs. It supports research progression by gathering, preserving, retrieving and making available a range of information resources related to medical research community (Saini, Bhakar & Singh, 2014). A health sciences institute cannot function properly without a library as it plays a significant role in attaining the institute's aims (Kuh & Gonyea, 2003).

In Pakistan, health sciences institutions started to be established from the middle of the 19<sup>th</sup> century. In 1860, King Edward medical college was established, and in 1870, Mayo hospital was founded in the country. For students and faculty, a priority was given to make available college libraries and reading libraries as well in hospitals for medical practitioners. At the time of independence in 1947, there were only two medical college libraries in the country. These libraries were affiliated with Dow health institute, Karachi and King Edward medical college, Lahore. After the creation of Pakistan, Jinnah Post-graduate medical center library, Karachi was established in 1958 (Haq, 2013). With the establishment of health sciences institutions in the country, medical libraries have been established in medical universities, professional research institutions and medical colleges. (Ullah & Rafiq, 2014).

The main purpose of libraries including health sciences institute libraries is to struggle continuously for users' satisfaction. It is essential for libraries to know the requirements and expectations of their users (Miao & Basham 2007). The

health sciences institute libraries are required to provide suitable collection, facilities, and services to users to achieve their satisfaction.

## **2. Literature review**

### **2.1 Users' satisfaction in libraries**

A library is an essential part of any high level academic institute. Health sciences libraries have no exemption to it. The users' satisfaction is supposed to be consistent standard for defining the efficiency of the library. It supports the library to provide its users the correct data that they need in an active method by giving typical and appropriate library facilities desired by them (Khan, A. M. 2012).

Nowadays, the library is similar to a knowledge center and is considered to be the heart of any health sciences institution. The users' satisfaction is the main objective of library services and is regarded as a key to the success of a medical library. Services provided by library professionals also contribute to users' satisfaction. Medical library professionals must regularly examine users' satisfaction with library resources and services, information preferences and collection to confirm that the users' information needs are satisfactorily fulfilled within the required time (Saini, Bhakar & Singh, 2014). Despite limited budgets, medical libraries are faced with a tough challenge as they are supposed to improve their performance in line with users' expectations. (Matthews et al., 2013).

Medical libraries are investing a large amount of budget on resources and services to improve efficiency. There is a high demand for raising funds on the part of medical libraries to design and offer services to satisfy users' needs. User

satisfaction helps in justifying resources and improving the services. One of the aims of conducting the users' satisfaction study is to improve the services provided to users. It is important to drill down in detail results of the study, to make a comparison within or between services, and to investigate examples of good practices. Different groups of library users have different priorities and expectations of the service, and a good library service has sufficient flexibility to meet all those requirements and ensure high level of satisfaction across all users. An "one-size" library service does not fit all users, and managers should remember that the best provision might not be uniform across the whole service (Creaser, 2006).

User satisfaction is a significant measure of service quality in libraries. Satisfaction is an effective response that can be measured on the basis of a cumulative series of experiences over time (Oliver, 2014). There are two main approaches to the assessment of user satisfaction. One is concerned with the library user, while the other relates to library performance. In the first case, the library user is considered the object of the study and his views offer the measure of user satisfaction. In the second case, library performance is determined using a specific number of indicators that measure the degree of user satisfaction. The level of user satisfaction is presumed proportional to the level of library performance (Niyonsenga & Bizimana, 1996). For measuring user satisfaction, a user-oriented approach is considered to be more appropriate. The user satisfaction is also considered a reliable standard for measuring library effectiveness. It enables the library to meet users' information needs effectively by providing suitable and standard library services and resources needed by them.

The reviewed literature reveals that a number of research studies exploring users' satisfaction with library resources and services have been conducted. For instance, Saeed and Ramzan (2003) carried out a questionnaire survey to explore students' satisfaction with library services provided by Lahore University of Management Sciences (LUMS) library, Pakistan. The findings of the research study show that the students were using the library for different purposes, such as research, group discussion and preparing class assignments. The students showed greater level of satisfaction with library services. They proposed that the loan period of books be extended and library timings be enhanced. Khan (2006) conducted a study to discover students' perceptions about reference librarians and how they approach them for services in the Peshawar university library, Pakistan. Rehman et al. (2009) explored users' satisfaction with library services in University of the Punjab library, Lahore, Pakistan. Rehman, Shafiq and Mahmood (2010) undertook a study to find out users' perceptions and satisfaction with reference and information services in university libraries of the Punjab, Pakistan. They noted that users were overall satisfied with reference services provided by the libraries. Mirza and Mahmood (2012) carried out a study to explore users' satisfaction with electronic resources and services in Pakistani university libraries. They discovered that users were satisfied with different electronic resources and services such as, OPAC, online databases, CD-ROM databases, virtual reference service, current awareness service, selective dissemination of information service, printing and scanning facilities.

## **2.2 Users' satisfaction and changing needs**

In the new millennium, library and information service providers are becoming interested in understanding and meeting users' changing needs. In a

period of budget cuts and downsizing, optimization of resources and user satisfaction have become important issues for libraries to become aware of, and capable to change as user needs change. The libraries that recognize the requirements of their users can not only work well to meet those requirements, but can also be able to market their services effectively. Fast changes in library services and operations, assessment expectations by external accrediting bodies, demands for internal institutional accountability have contributed to development and application of user surveys in academic libraries during the last decade. (Siatri 1999),

The users having poor experience of library services inform other people about their experiences and this may result in reduction of users (Horovitz, 1990). The other possible result of providing poor quality services might impact on libraries' overall image in the community at large, including employer's organizations and funding bodies (Smith & Clarke, 2007).

Academic institutions endeavor to ensure students' academic success by providing them with quality supporting services (i.e. libraries, residential facilities, food services) and best teaching faculty. These services not only enhance students' satisfaction but also help to create a good image of the institution. Students' satisfaction with various services helps to convince both parents and students that the program of study and facilities provide value for the money they spend. The institutions' better service reputation helps in obtaining donations. High quality service helps to create loyal customers. Parents and students also prefer those institutes, which provide good library facilities. Library service quality is also considered essential element for accreditation standards. A library is an integral part of a health sciences institute, and users are the key

stakeholders who require information. The basic objective of a health sciences library is to fulfill users' information needs. Enhancing user satisfaction is integral to a successful medical library, because satisfied users remain loyal and have positive feelings about the library. It is only possible when library managers keep in contact with users, understand and identify their changing information needs, and provide them with resources and services in accordance with their expectations and requirements (Hernon, Nitecki and Altman, 1999).

### **3. Objectives of the study**

The objectives of the study are:

- To find out users' satisfaction with resources in health sciences institute libraries in Punjab, Pakistan.
- To explore users' satisfaction with services offered by health sciences institute libraries in Punjab, Pakistan.

### **4. Methodology**

The quantitative research method was employed to achieve objectives of the study. Based on the literature review, a questionnaire was developed to collect the quantitative data from users of four public sector health sciences institute libraries located in Punjab, Pakistan. The selected libraries included Nishtar Medical College library, Multan, Sheikh Zayed Medical College library, Rahim Yar Khan, Ghazi Khan Medical College library, Dera Ghazi Khan, and Quaid e Azam Medical College library, Bahawalpur. A convenience sampling technique was employed to collect data from the respondents.

## 5. Data analysis

### 5.1 Response rate

In this study, the questionnaire was employed to gather data from users of four public sector health sciences institute libraries in Punjab, Pakistan. Out of 400 respondents, 353 respondents filled and returned the questionnaire with a response rate of 88 percent. Amongst these 353 respondents, the majority of the respondents 92 (23%) belonged to Nishter Medical College, Multan, 91 (22.75%) to Quaid e Azam Medical College, Bahawalpur, 85 (21.25%) to Sheikh Zayed Medical College, Rahim Yar khan and 85 (21.25%) to Ghazi Khan Medical College, Dera Ghazi Khan (Table 1).

Table 1

*Response rate by institute (N=353)*

<b>Name of Institution</b>	<b>Frequency</b>	<b>Percent</b>
Nishter Medical College, Multan	92	23.00
Quaid e Azam Medical College, Bahawalpur	91	22.75
Sheikh Zayed Medical colleges, Rahim Yar Khan	85	21.25
Ghazi khan medical colleges, Dera Ghazi Khan	85	21.25
<b>Total</b>	<b>353</b>	<b>88.25</b>

### 5.2 Respondents' gender

Among 353 total respondents, 182 (51.6 %) respondents were male and 171 (48.4%) were female (Table 2).

Table 2

*Respondents' gender (N=353)*

<b>Gender</b>	<b>Frequency</b>	<b>Percentage</b>
Male	182	51.6

Female	171	48.4
<b>Total</b>	<b>353</b>	<b>100</b>

### 5.3 Respondents' age group

As regards respondents' age groups, the majority of the respondents (293, 83%) were between 18-25 years of age, 26 (7.4%) between 26-30 years of age, 14 (4%) between 31-35 years of age, 18 (5.1%) respondents were below 18 years of age, and only one respondent was above 36 years of age (Table 3).

Table 3

*Respondents' age group (N=353)*

<b>Age Group</b>	<b>Frequency</b>	<b>Percent</b>
18-25 years	293	83.0
26-30 years	26	7.4
below 18 years	18	5.1
31-35 years	14	4.0
36 years and plus	1	0.3
<b>Total</b>	<b>353</b>	<b>100.0</b>

### 5.4 Respondents' year of study

Three hundred and fifty two respondents provided information about their year of study. Out of 352 respondents, the majority of the respondents 81(22.9%) were in second year of their studies, 74 (21%) in third year, another 74 (21%) in fourth year, 72 (20.4 %) in first year, while 51 (14.4 %) respondents had spent more than four years while studying at their institutes (Table 4).

Table 4

*Respondents' year of study (N=352)*

<b>Year of study</b>	<b>Frequency</b>	<b>Percent</b>
Second	81	22.9
Third	74	21.0
Fourth	74	21.0
First	72	20.4
Others	51	14.4
<b>Total</b>	<b>352</b>	<b>100.0</b>

### **5.5 Respondents' satisfaction with library resources and services**

In order to explore users' satisfaction with resources and services of the libraries, the respondents were asked to provide their opinions about different resources and services of the libraries by using a five - point Likert scale (1 = strongly disagree, 2 = disagree, 3 = no opinion, 4 = agree, and 5 = strongly agree). Respondents' opinions are described under the following headings.

#### **5.5.1 Library environment**

The participants were required to show their level of satisfaction with the environment of library (cooling / heating, noise level, furniture, cleanliness, and lights etc.). The respondents agreed that the library environment is conducive for study and research with respect to noise level, heating /cooling, lights, furniture, cleanliness (mean=3.53). Whereas, most of the participants did not give their opinions with regard to adequacy of space for study and research (mean=3.22) and the library opening hours (mean=2.91) (Table 5).

Table 5

*Users' satisfaction with library environment (N=353)*

Statement	Frequency	Means	S. D.
Library Environment (noise level, heating/cooling, lights, furniture, & cleanliness) is conducive to study and research	353	3.53	1.236
Library has enough space for study and research	351	3.22	1.306
Library opening hours meet my needs	349	2.91	1.810

T-test was performed to determine the difference between the opinions of male and female participants with regard to their satisfaction with library environment. No significant difference between the opinions of male and female participants was found about their satisfaction with library environment with the significance value of 0.876 (Table 6).

Table 6  
*T-test regarding users' satisfaction with library environment with respect to gender (N=353)*

Statement	N	gender	Mean	t	Sig.
Users' satisfaction with library environment	182	Male	3.3695	.494	.876
	171	Female	3.3553		

The one way ANOVA test was used to determine difference in respondents' opinions with regard to their satisfaction with library environment with respect to age group and year of study.

ANOVA results show that there is no significant difference among the respondents' opinions about their satisfaction with library environment with

respect to age group as p value 0.538 is greater than the significance value 0.05 (Table 7).

Table 7

*ANOVA statistics about users' satisfaction with library environment with respect to age group (N=353)*

Statement	Mean					F	Sig.
	below 18 years	18-25 years	26-30 years	31-35 years	36 and plus		
Users' satisfaction with library environment	3.44	3.52	3.58	3.93	4.00	.781	.538

ANOVA statistics mentioned in table 8 show that there is significant difference among the participants' opinions about library environment with respect to year of study as p value 0.029 is less than the significant of value 0.05 (Table 8).

Table 8

*ANOVA statistics about users' satisfaction with library environment with respect to year of study (N=353)*

Statement	Mean					F	Sig.
	First year	Second year	Third year	Forth year	Others		
Users' satisfaction with library environment	3.6215	3.3210	3.240	3.395	3.181	.729	0.029

### 5.5.2 Library policies and procedures

The respondents were asked to give their opinions about different statements related to library policies and procedures. The respondents agreed that library membership procedure is easy (mean=3.90), borrowing books from library is convenient (mean=3.78), fine charges for overdue/lost books are

appropriate (mean=3.68) and the duration of books loan is adequate (mean=3.66). With regard to adequacy of number of books/items lent by the library, most of the respondents gave no opinion (Table 9).

Table 9  
*Users' satisfaction with library policies and procedures (N=353)*

<b>Statement</b>	<b>Frequency</b>	<b>Mean</b>	<b>S.D</b>
Library membership procedure is easy	353	3.90	1.081
Borrowing the books from the library is convenient	353	3.78	1.078
Fine charges for overdue/lost books are appropriate	353	3.68	1.172
Duration of books loan is adequate	353	3.66	1.133
Numbers of books/items lent by the library is sufficient	353	3.37	1.257

T-test was performed to determine difference between the opinions of male and female participants with regard to their satisfaction with library policies and procedures. No significant difference between the opinions of male and female participants with regard to satisfaction with library policies and procedures was found with the significance value of 0.309 (Table 10).

Table 10  
*Results of t-test regarding users' satisfaction with library policies and procedures with respect to gender (N=353)*

<b>Statement</b>	<b>N</b>	<b>gender</b>	<b>Mean</b>	<b>T</b>	<b>Sig.</b>
Users' satisfaction with library policies and procedures	182	Male	2.9505	1.020	.309
	171	Female	2.8784		

ANOVA results mentioned in table 11 show the difference of respondents' opinions about the satisfaction with library policies and procedures with respect to their age group. The results indicate that there is no significant difference

among the participants opinions about the satisfaction with library policies and procedures with respect to age group as p value 0.736 is greater than the significance value 0.05 (Table 11).

Table 11

*ANOVA statistics of users' satisfaction with library policies and procedures with respect to age group (N=353)*

Statement	Mean					F	Sig.
	below 18 years	18-25 years	26-30 years	31-35 years	36 and plus		
Users' satisfaction with library policies and procedures	3.0556	2.9031	2.9154	2.9571	3.6000	.500	.736

ANOVA statistics mentioned in table 12 show that there is significant difference among the participants' opinions about library policies and procedures with respect to year of study as p value 0.00 is less then significant of value 0.05 (Table 12).

Table 12

*ANOVA statistics of users' satisfaction with library policies and procedures with respect to year of study (N=353)*

Statement	Mean					F	Sig.
	First year	Second year	Third year	Forth year	Others		
Users' satisfaction with library policies and procedures	3.1528	2.8568	2.8459	3.0595	2.5647	7.578	0.00

### 5.5.3 Library Staff

The participants were required to give their opinions regarding library staff. The respondents agreed that library staff is knowledgeable and competent enough to deliver quality services (mean=3.82), library staff is always courteous and

helpful (mean=3.82), library staff provides prompt services (mean=3.63), and library staff understands their needs (mean=3.53) (Table 13).

Table 13

*Users' satisfaction with library staff (N=353)*

Statement	Frequency	Mean	S.D
Library staff is knowledgeable and competent enough to deliver quality services.	353	3.82	1.069
Library staff is always courteous and helpful	353	3.82	1.069
Library staff provides prompt services	353	3.63	1.064
Library staff understands my needs	353	3.53	1.064

T-test was performed to determine the difference between opinions of male and female participants with regard to their satisfaction with library staff. It was found that there is no difference between the opinions of male and female participants with regard to their satisfaction with library staff with p value of 0.768 (Table 14)

Table 14

*Results of t-test regarding users' satisfaction with library staff with respect to gender (N=353)*

Statement	N	Gender	Mean	T	Sig.
Users' satisfaction about library staff	182	Male	3.6168	-.295	.768
	171	Female	3.6462		

ANOVA results mentioned in table 15 show users' satisfaction with library staff with respect to their age group. The results indicate that there is no significant difference among the participants' opinions about satisfaction with library staff with respect to age group as the p value 0.831 is greater than 0.05 (Table 15).

Table 15

*ANOVA statistics of users' satisfaction with library staff with respect to age group (N=353)*

Statement	Mean					F	Sig.
	below 18 years	18-25 years	26-30 years	31-35 years	36 and plus		
Users' satisfaction with library staff	3.4861	3.6391	3.6154	3.8214	4.2500	.369	.831

ANOVA statistics mentioned in table 16 show that there is no significant difference among the participants' opinions about library staff with respect to year of study as p value is  $0.768 > 0.05$ .

Table 16

*ANOVA statistics of users' satisfaction with library staff with respect to year of study (N=353)*

Statement	Mean					F	Sig.
	First year	Second year	Third year	Forth year	Others		
Users' satisfaction about library staff	3.7535	3.5586	3.5372	3.7466	3.5343	.369	,768

#### 5.5.4 Library collection

The participants were required to give their opinions regarding library collection. The respondents agreed that the print collection of library is well organized and books/items are easy to find (means=3.55). Whereas, the majority of the respondents provided no opinion about adequacy of library's print journal collection (mean=3.27), library's print collection (mean=3.24), thesis collection (mean=3.19), electronic information resources (mean 3.19), and reference materials (mean=2.93) (Table 17).

Table 17

*Users' satisfaction with library collection (N=353)*

<b>Statement</b>	<b>Frequency</b>	<b>Mean</b>	<b>S. D</b>
Library's print collection is well organized and books/items are easy to find.	350	3.55	1.171
Library's print journal collection is adequate for my study and research	351	3.27	1.134
Library's print collection is adequate for my needs	343	3.24	1.231
Library arranges a useful collection of thesis which supports in conducting research	346	3.19	1.193
Library provides access to adequate electronic information resources (i.e. e. Journal, e. books, and e. databases) for study and research.	350	3.19	1.193
Library has adequate reference materials for answering reference questions	352	2.93	1.345

T-test was performed to determine the difference between opinions of male and female participants regarding their satisfaction with library collection. It was found that there is no significant difference between the opinions of male and female participants with regard to the satisfaction with library collection with the significance value of 0.784 (Table 18).

Table 18

*Result of t-test regarding users' satisfaction with library collection with respect to gender (N=353)*

<b>Statement</b>	<b>N</b>	<b>Gender</b>	<b>Mean</b>	<b>T</b>	<b>Sig.</b>
Users' satisfactions with library collection and resources	182	Male	3.2436	.275	.784
	171	Female	3.2183		

ANOVA results mentioned in table 19 show that there is no significant difference among the participants' opinions about library collection with respect to age group as the p value 0.196 is greater than the significance value 0.05 (Table 19).

Table 19

*ANOVA statistics of users' satisfaction with library collection and resources with respect to age group (N=353)*

Statement	Mean					F	Sig.
	below 18 years	18-25 years	26-30 years	31-35 years	36 & plus		
users' satisfaction with library collection and resources	3.3333	3.1906	3.3462	3.5476	4.6667	1.520	.196

ANOVA statistics mentioned in table 20 show that there is significant difference among the participants' opinions about library collection with respect to year of study with p value of 0.000 (Table 20)

Table 20

*ANOVA statistics of users' satisfaction with library collection and resources with respect to year of study (N=353)*

Statement	Mean					F	Sig.
	First year	Second year	Third year	Forth year	Others		
Users' satisfaction with library collection and resources	3.5764	3.2675	3.0968	3.2838	2.8137	6.849	0.000

### 5.5.5 Library Services

The respondent were required to provide their opinions regarding library services. The majority of respondents gave no opinion about convenient use and helpfulness of traditional library catalogue (mean=3.42), efficiency of reference/library staff in providing answers to reference quires online (mean=3.38), awareness about library resources and services (mean=3.36), effectiveness of selective dissemination information service (mean=2.95), current awareness services (mean=2.92) and document delivery service (mean=2.90), arranging of

an effective orientation program for new intake of students (mean (2.89), efficiency of reference/ library staff in providing answers to questions traditionally (mean=2.83), provision of inter library loan (mean=2.81), photocopying facility (mean=2.64) and OPAC in library (mean=2.55) (Table 21).

Table 21  
*Users' satisfaction with library services (N=353)*

<b>Statement</b>	<b>Frequency</b>	<b>Mean</b>	<b>S.D</b>
Traditional library catalogue is convenient to use and helps to find books/items in library easily	353	3.42	1.169
Reference/library staff satisfactorily answers my reference quires online (through email, chat or videoconferencing)	353	3.38	1.109
I fully aware of resources and service provided by library	353	3.36	1.238
Selective dissemination services (SDI) provided by library	353	2.95	1.240
Library provides an efficient current awareness services (CAS) for newly acquired information resources.	353	2.92	1.266
Library provides efficient documents delivery Service	353	2.90	1.292
Library arranges an effective orientation program for new intake of Students	353	2.89	1.274
Reference/ library staff answers any questions efficiently	353	2.83	1.266
Library provides good inter library loan	353	2.81	1.300
Photocopying facility in library is adequate	353	2.64	1.426
Electronic catalogue (OPAC) is available in the library, and easy to use	353	2.55	1.419

T-test was performed to determine the difference between opinions of male and female participants about their satisfaction with library services. It was found that there is no significant difference between the opinions of male and female participants regarding the satisfaction with library services with the significance value of 0.890 (Table 22).

Table 22

*Result of t-test regarding users satisfaction with library services with respect to gender (N=353)*

<b>Statement</b>	<b>N</b>	<b>Gender</b>	<b>Mean</b>	<b>T</b>	<b>Sig.</b>
Users' satisfactions with library services	182	Male	3.2436	.139	.890
	171	Female	3.2183		

ANOVA results mentioned in table 23 show the difference of respondents' opinions about the satisfaction with library services with respect to their age group. This result show that there is significant difference among the participants' opinions about the satisfaction with library services with respect to their age group as the p value 0.000 is less than the significance value 0.05.

Table 23

*ANOVA statistics of users' satisfaction with library Services with respect to age group (N=353)*

<b>Statement</b>	<b>Mean</b>					<b>F</b>	<b>Sig.</b>
	<b>Below 18 years</b>	<b>18-25 years</b>	<b>26-30 years</b>	<b>31-35 years</b>	<b>36 and plus</b>		
Users' satisfaction with library services	3.0909	2.8833	3.3357	3.3896	4.4545	3.363	.000

ANOVA statistics mentioned in table 24 show that there is significant difference among the participants' opinions about library services with respect to year of study as p value 0.00 is less then significant of value 0.05 (Table 24)

Table 24

*ANOVA statistics of users' satisfaction with library services with respect to year of study (N=353)*

Statement	Mean					F	Sig
	First year	Second year	Third year	Fourth year	Others		
Users' satisfaction with library services	3.3270	2.9719	2.8292	2.9595	2.5651	6.252	0.000

### 5.5.6 ICT Facilities

Respondents were asked to provide opinions about ICT facilities in their respective libraries. The majority of the respondents provided no opinion about the access to HEC Digital Library (mean=2.69), accessibility of library electronic resources from outside the institute (mean=2.69), effectiveness of library website (mean=2.66), internet facility (mean=2.63), availability of adequate computers in library for study and research (mean=2.55) (Table 25).

Table 25

*Users' satisfaction with ICT facilities in library (N=353)*

Statement	Frequency	Mean	S.D
Library effectively provides access to HEC digital library which is helpful for my study and research	353	2.69	1.358
Library electronic resources services are accessible from outside the institute	353	2.69	1.401
Library website is informative, helpful, easy to use and a good source for electronic library resources and services	353	2.66	1.403
Library provide a good internet facility	353	2.63	1.432
Adequate computers are available in Library for study and research	353	2.55	1.419

T-test was performed to determine the difference between opinions of male and female participants about their satisfaction with ICT facilities available in

their respective libraries. It was found that there is no significant difference between the opinions of male and female participants with regard to their satisfaction with ICT facilities with the significance value of 0.827 (Table 26).

Table 26

*Result of t-test regarding users' satisfaction with ICT Facilities with respect to gender (N=353)*

<b>Statement</b>	<b>N</b>	<b>Gender</b>	<b>Mean</b>	<b>t</b>	<b>Sig</b>
Users' satisfaction with ICT facilities	182	Male	2.6121	-.219	.827
	171	Female	2.6409		

ANOVA results mentioned in table 27 show the difference of respondents' opinions about the satisfaction with ICT facilities with respect to their age group. The results show that there is significant difference among the participants' opinions about the satisfaction with ICT facilities with regard to age group as the p value 0.018 is less than the significance value 0.05 (Table 27).

Table 27

*ANOVA statistics of users' satisfaction with ICT facilities with respect to age group (N=353)*

<b>Statement</b>	<b>Mean</b>					<b>F</b>	<b>Sig</b>
	<b>Below 18 years</b>	<b>18-25 years</b>	<b>26-30 years</b>	<b>31-35 years</b>	<b>36 and plus</b>		
Users' satisfaction about Library ICT facilities	2.7333	2.5406	2.9308	3.4229	4.6000	3.032	.018

ANOVA statistics mentioned in table 28 show that there is significant difference among the participants' opinions about ICT facilities with regard to year of study as p value 0.001 is less than significant of value 0.05.(Table 28)

Table 28

*ANOVA statistics about users' satisfaction with library ICT facilities with respect to the year of study (N=353)*

Statement	Mean					F	Sig
	First year	Second year	Third year	Fourth year	Others		
Users' satisfaction with ICT facilities	2.9806	2.6494	2.4838	2.7622	2.0902	4.534	0.001

## 6. Discussion

### 6.1 Users' satisfaction with library resources and services

Users' satisfaction with different resources and services of the health sciences institute libraries included in the study are described under the following headings

#### 6.1.1 Library environment

Libraries are required to develop and maintain suitable environment, timings and space so that users can conduct their studies and research effectively. The results of this study show that most of the participants were satisfied with the environment of library (i.e. cooling / heating, lighting, cleanliness, noise level and furniture). Whereas, most of the respondents did not give opinions about suitability of library opening hours, and adequacy of space for study and research.

#### 6.1.2 Library policies and procedures

Suitable and convenient library policies and procedures help users to use library services and resources effectively and gain maximum benefits from them. The study suggests that respondents were satisfied with ease of library membership procedure and borrowing of books, appropriateness of fine charges

for overdue/lost books, adequacy of duration of books loan. Whereas, most of the respondents did not give opinions about adequacy of number of books/items lent by the library,

### **6.1.3 Library staff**

The skilled and qualified manpower is vital for survival of any organization. Competent library staff is essential for the development of a library. The staff plays an important role in meeting users' information needs and helps to increase library users. The findings of this study show that users were satisfied with library staff's knowledgeability and competency to deliver quality services, courteously and helpfulness, and the ability to provide prompt services and understand users' needs.

### **6.1.4 Library collection**

Library collection, especially a medical college library's collection, is very important as it plays a major role in fulfilling users' information needs. The study suggests that the participants were fully satisfied with the organization of print collection of the library, while most of the respondents did not provide opinions about adequacy of library's print journal collection, library's print collection, thesis collection, electronic information resources (e. journal, e. books, and e. databases) and reference materials.

### **6.1.5 Library services**

Effective and efficient library services help users to take advantage of library resources and fulfill their information needs, thus contributing to build goodwill of the library among users. The results of the study reveal that the majority of the participants did not provide their opinions with regard to different library services and their features, such as convenient use and helpfulness of

traditional library catalogue, efficiency of reference/ library staff in providing answers to reference queries online, marketing of library resources and services, effectiveness of selective dissemination information service, current awareness services and document delivery service, orientation program for new intake of students, efficiency of reference/ library staff in providing answers to questions traditionally, provision of inter library loan, photocopying facility, and OPAC in the library.

#### **6.1.6 ICT facilities**

The development of information and communication technologies have affected both library resources and users. Users expect libraries to meet their information needs by employing ICT in the current digital era. The findings of the study show that most of the respondents did not give opinions about different ICT facilities in their respective libraries, such as the access to HEC Digital Library, accessibility of library electronic resources from outside the institute, effectiveness of the library website, internet facility, availability of adequate computers in library for study and research.

### **7. Conclusion**

The study explored users' satisfaction with resources and services in health sciences institute libraries in Punjab, Pakistan. The findings of the study suggest that the majority of participants were satisfied with the library environment (furniture, heating/cooling, noise level, lights and cleanliness). Whereas, most of the respondents did not give opinion about adequacy of space for study and research provided by the libraries. The respondents were satisfied with the courtesy, helpfulness, knowledgeable and competency of library staff. The respondents were also satisfied with organization of library collections. However,

the majority of the respondents did not provide their opinions about different library services. The findings of the study will help the library administration in identifying users' needs and expectations, and design and improve resources and services in accordance with users' requirements.

## **8. Recommendations**

The following recommendations are made:

1. Health sciences institute libraries included in the study should improve the overall environment (i.e. cooling, furniture, space, discussion halls) for conducting study and research effectively.
2. Libraries should increase the number of books/items lent to users.
3. Libraries should update and enhance their print collections, print journal collections, reference collections, electronic collections (i.e. e. Journal, e. books, and e. databases) to help students conduct their study and research effectively. Libraries should also arrange a useful thesis collection which supports scholars to conduct research.
4. Libraries should make the traditional library catalogue up- to- date and convenient to use for finding books/items. Libraries should also provide Online Public Access Catalogue (OPAC) to help users to search for their required information resources more efficiently.
5. Libraries should employ effective strategies to market and publicize their resources and services so that user can become aware of them and gain benefit from them.

6. Libraries should provide effective selective dissemination of information services, current awareness services and documents delivery services so that users can conduct their study and research effectively.
7. Libraries should arrange an effective orientation program for new intake of students on a regular basis.
8. Libraries should design and launch electronic services including digital reference services so that users can benefit from them by accessing them remotely.
9. Libraries should make arrangements for the inter library loan to obtain required information resources from other libraries in order to meet users' information needs.
10. Reprographic services should be provided in the libraries.
11. Libraries should set up their Websites to enable users to access and utilize their electronic resources and services effectively.
12. Libraries should provide access to HEC digital library so that users can benefit from a wide range of important information resources in the medical field provided by the HEC digital library.
13. Libraries should provide a good internet facility to users .
14. Libraries should enhance the number of computers provided to users for conducting study and research.
15. Libraries should arrange in-house training for their newly-inducted staff and for existing staff on a regular basis to enhance their competencies to perform different library tasks effectively.

16. Libraries should provide an opportunity to their professional staff to undertake continuing professional development courses in the country to enhance their competencies to perform and manage different library tasks/assignments effectively.

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