

Use of electronic sources and services in medical and Para-medical college in Gujarat: a user study

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Abstract:

Electronic resources and services have become indispensable in the modern era. Not only in business, but also in higher education institutions and service sectors such as libraries. The current study is based on the use of electronic resources and services by Gujarati medical and paramedical students. The researcher investigates ten colleges in the fields of medicine, dentistry, pharmacy, nursing, and physiotherapy. Data has been gathered from library users from each college. The study included 100 students, 20 from each discipline college. 90 responses were received from 100 students. Different electronic resource and service libraries have been implemented, but users are not taking advantage of them because they are unaware of their existence.

Keywords: Electronic Database, Medical professionals, Paramedical, medical database

1 Introduction:

Huge changes have occurred as a result of technological advancements in every business and service industry, and library and information science are no exception. ICT has altered the entire working method of libraries. As technology advances, users' needs and expectations of libraries change as they gain access to information at their fingertips via hand-held mobile devices and computers with internet access. It will be advantageous because they will not have to travel a long distance to obtain the information.

The current research project investigates the use of electronic sources and services available in Gujarat medical college libraries. Medical and Para-medical colleges are academic institutions that cater to the needs of teaching and learning. Users in traditional library systems spent more time searching for small amounts of information and relied heavily on libraries. But ICT save the time to access information. Libraries can also benefited because of ICT as the tedious work of

libraries being more smooth. Thus increased usage of electronic resources to access information, libraries need to connect their work as well as resources with the internet. However, information technology saves time. Libraries can also benefit from ICT because it makes the tedious work of libraries more efficient. As the use of electronic resources to access information grows, libraries must connect their work and resources to the internet.

2. Literature Review:

Taviyad, Rameshbhai Hirabhai in an article, “Use of e-resources in medical college libraries: a study based on Gujarat State” said about shifting of library services towards automation and e-resources services. Medical libraries are positively implemented automation and electronic resources and services into their library. ICT helps them for implementing advance and efficient services in medical college libraries. It is found that users are in favor of electronic resource management. Although electronic resources are growing slower than expected, it will enhance libraries to switch over to more and more electronic resources in future. (Taviyad, 2015)

Lakshanakumar, B M and Senthilnayagam, K in an article, “Use of electronic resources by the faculty members of government medical college libraries in Karnataka” said that there is a huge change in library services after introduction of ICT. Medical college libraries are providing efficient information services by offering both electronic and print resources. The paper includes use of electronic resources like e-books, e-journals and e-database which are subscribed through Health science library and information network and HELINET consortium. Faculty members of government medical college was consider as a sample for study. After analyzing the data it is found that use of electronic resources and use of database by faculty members is not satisfactory. (Lakshanakumar, 2019)

Thanuskodi, S and Sugathi, M in an article, “Use of internet and electronic resources among Para-medical professionals: a survey” said that rapid development of ICT in the current age has change the working of librarianship. E-resources and services have taken place of print resources and traditional library services. ICT change the way the information generated, stored, organized, accessed, retrieved and consumed. Nowadays almost all the information are in electronic form so it takes less time to published it, it required less space to store it and it is accessed so quickly. The researcher conducted the study on use of e-resources among paramedical professionals in Madurai region. The library staff have to create more awareness about the e-resources available and guide them to access it. For guiding their users library staff required training to handle

electronic resources and users required orientation which will guide them to understand this new information retrieval system. (Thanuskodi, 2013)

Parande, Malangori Abdulgani, Borle, P S and Tapare, V S in an article, “The utilization of library services by undergraduate students in a medical college” said that a medical student does not only depend upon the traditional knowledge lying in the books, they have to learn to collect the information by their own. In current research work researcher is trying to find the usage pattern and problems users are facing to access information resources and library services in a medical college. The study conducted among the undergraduate students during January and February 2014. Collected data from them analyzed with the help of tabulation in MS Excel. After analyzing the data it is found that most students using text books as an information sources, they are not aware with the facilities like medical journals and electronic database, therefore orientation program should be conducted. That helps the users to know the available sources and services available in their libraries. (Parande, 2016)

3. Objectives:

1. To evaluate the availability of electronic resources in medical college libraries of Guajrat
2. To identify use of IT services in the library
3. To evaluate the type of electronic resources and services available in medical college libraries
4. To find out the purpose and frequency of using electronic resources and services in medical college libraries of Guajrat.
5. To evaluate the level of satisfaction in using electronic resources and services in libraries.

4. Research Methodology:

The study's goal is to discover how e-resources and services are used in Gujarat's medical and para-medical college libraries. The investigation is quantitative in nature. The researcher used the survey method to determine the answer to the research question and to meet the objectives. A well-structured questionnaire was distributed to 100 students from Gujarat's medical and paramedical college libraries. The study includes a total of ten colleges. These colleges include two medical schools, two dental schools, two pharmacy schools, two nursing schools, and two physiotherapy schools. The collected data will be analyzed using charts and diagrams.

5. Data analysis and discussion:

To determine our use of internet databases and services in medical and paramedical college libraries, researchers analyse data using charts and tabulation. The table that follows discusses the various analyses of the collected data.

Table : 5.1 Distribution of respondent by their profession

Distribution of respondent by their profession		
Profession	No. of respondent	percentage (%)
Medical	15	75%
Dental	18	90%
Pharmacy	17	85%
Nursing	20	100%
Physiotherapy	20	100%
Total	90	90%

The above table indicate the distribution of respondent by their profession. Medical and paramedical staff are consider to collect the data. All different discipline staff had given 20 questionnaire each among them 15 (75%) received back from Medical college library staff, 18(90%) received back from dental college library staff. 17 (85%) received back from pharmacy library, and 100% response received from nursing and physiotherapy library staff. Thus overall 90% response received by the respondent.

Table: 5.2 Place to access internet

Place to access internet by respondent		
Particular	No. of respondent	percentage (%)
College campus	10	11.11%
mobile device	40	44.44%
library	15	16.66%
Computer Lab	25	27.77%

Respondent were asked from where they access internet to search require information and their response indicates that out of 90 respondent 10 (11.11%) access internet from college campus, 40 (44.44%) access it from their mobile devices i.e. information available to them on their finger tips. 15 (16.16%) use library computers and internet to access required sources and 25 (27.77%) were used computer lab to access information.

Table: 5.3 Availability of computer and internet in library

availability of computer and internet in library		
Particular	Yes	No
Medical	12 (80%)	3 (20%)
Dental	14 (77.77%)	4 (22.23%)
Pharmacy	11 (64.70%)	6 (35.29%)
Nursing	18 (90%)	2 (10%)
Physiotherapy	17 (85%)	3 (15%)

The table indicates the computer and internet facility available in medical, dental, pharmacy, nursing and physiotherapy college libraries and it shows that 12 (80%) medical college libraries possess this facility where as 14 (77.77%) dental college, 11 (64.70%) pharmacy college, 18 (90%) nursing college and 17 (85%) physiotherapy college have computer and internet in their library.

Table: 5.4 Frequency of respondent to access information in library

Respondent frequency to access internet			
Particular	< 1 Hour	1 to 3 hours	> 3 Hours
Medical	2 (13.33%)	8 (53.33%)	5 (33.33%)
Dental	4 (22.22%)	6 (33.33%)	8 (44.44%)
Pharmacy	5 (29.41%)	4 (23.52%)	8 (47.05%)
Nursing	6 (30%)	7 (35%)	7 (35%)
Physiotherapy	7 (35%)	5 (25%)	8 (40%)

The above table indicates number of respondent frequency for using libraries to access information and it is found that from medical college 2 (13.33%) spend less than one hour in library to access information 5 (53.33%) uses one to three hours and 5 (33.33%) uses more than 3 hours. Dental college respondent uses library to access information less than 1 hour 4 (22.22%) respondents, 6 (33.33%) access library for one to three hours and 8 (44.44%) uses it for more than 3 hours, 5 (29.41%) uses less than one hours from pharmacy college, 4 uses it for one to three hours and 8(47.05%) use it for more than 3 hours. Nursing student responded that 6 (30%) spend less than one hour in libraries, 7 (35%) uses library for one to three hours and more than 3 hours and in case of physiotherapy students, 7(35%) spend less than hours and 8 (40%) more than three hours in library to access information and use library electronic resources and services.

5.5 User’s pattern to search library resources

Users pattern to search available material in libraries					
Particular	Ask Librarian	WEBOPA C	Online database	Library website	Medical website
Medical	10	8	6	4	6
Dental	5	10	4	3	7
Pharmacy	8	6	5	7	3
Nursing	11	9	3	2	1
Physiothera py	14	8	2	1	1

Response does not calculated in percentage here because one respondent select more than one item. From the about table it is found that maximum users ‘ask librarian’ to search their require information. It indicates that 10 medical, 5 dental, 8 pharmacy, 11 nursing and 14 physiotherapy student responded to ask librarian. Whereas 8 medical, 10 dental, 6 pharmacy, 9 nursing, and 8 physiotherapy students uses webopac to search library material. 6 medical, 4 dental, 5 pharmacy, 3 nursing, and 2physiotherapy students uses online database, 4 medical students, 3 dental, 7 pharmacy, 2 nursing, and 2 physiotherapy students uses library website and 6 medical

students, 7 dental students, 3 pharmacy students, 1 nursing and 1 physiotherapy student uses medical website to access information.

Table 5.6 online database available in medical and paramedical college libraries:

Online database available in medical and paramedical college library					
Particular	Medical	Dental	Pharmacy	Nursing	Physiotherapy
PubMed	10(66.67%)	2 (11.11%)	3 (17.65%)	5 (25%)	2 (10%)
EMBASE	6(40%)	3 (16.67%)	5 (29.41%)	3 (15%)	3 (15%)
Cochrane Library	12 (80%)	4 (22.22%)	8 (47.06%)	2 (10%)	10 (50%)
PubMed Central	8 (53.33%)	6(33.33%)	12 (70.59%)	4 (20%)	1 (5%)
medline	2 (13.33%)	1 (5.55%)	3 (17.65%)	1 (5%)	4 (20%)
ProQuest	11 (73.33%)	8 (44.44%)	10 (58.82%)	5 (25%)	7 (35%)
E-books	13 (86.67%)	9 (50%)	14 (82.35%)	8 (40%)	10(50%)
E-journals	7 (46.67%)	4 (22.22%)	9 (52.94%)	2 (10%)	5 (25%)
E-thesis	1 (6.67%)	1 (5.55%)	2 (11.76%)	2 (10%)	3 (15%)

Above table indicates different database and electronic resources available in the library and users are using it to access information. 10 (66.67%) medical users uses PubMed, 2 (11.11%) dental, 3 (17.65%) pharmacy library users, 5 (25%) nursing students and 2 (10%) physiotherapy student uses PubMed database. 6 (40%) medical, 3 (16.67%) dental, 5 (29.41%) pharmacy, 3 (15%) nursing and 3 (15%) physiotherapy students uses EMBASE, 12(80%) medical students, 4 (22.22%) dental students, 8 (47.06%) pharmacy students, 2 (10%) nursing and 10 (50%) physiotherapy students uses Cochrane Library, 8 (53.33%) medical, 6 (33.33%) dental, 12 (70.59%) pharmacy, 4 (20%) nursing, 1 (50%) physiotherapy students uses PubMed Central, 2 (13.33%) medical, 1 (5.55%) dental, 3 (17.65%) pharmacy, 1 (5%) nursing and 4 (20%)

physiotherapy students uses medline, this database used very less by the students, 11 (73.33%) medical, 8 (44.44%) dental, 10 (58.82%) pharmacy, 5 (25%) nursing and 7 (35%) physiotherapy students uses ProQuest, while looking for E-books, E-journals and E-thesis, 13 (86.67%) medical, 9 (50%) dental, 14 (82.35%) pharmacy, 8 (40%) nursing and 10 (50%) physiotherapy students uses e-books, 7 (46.67%) medical, 4 (22.22%) dental, 9 (52.94%) pharmacy, 2 (10%) nursing and 5 (25%) physiotherapy students e-journals and 1 (6.67%) medical, 1 (5.55%) dental, 2 (11.76%) pharmacy, 2 (10%) nursing and 3 (15%) physiotherapy students uses e-thesis available in college and users are accessing it.

Table 5.7 Purpose of using electronic resources of library

Purpose of using electronic resources					
Particular	Medical	Dental	Pharmacy	Nursing	Physiotherapy
update knowledge	12	8	6	9	10
support learning and research requirement	10	16	4	10	6
reference purpose	8	6	11	16	6
finding quick information	13	14	15	18	17
lending and borrowing	11	12	12	17	18
access e-journals and books for assignment	10	9	13	18	14

Data of the above table in not given in percentage method as respondent gave more than one answer for the question. The table indicates that respondent is using library electronic resources for different purpose. 12 medical students, 8 dental, 6 pharmacy, 9 nursing and 10 physiotherapy students users library electronic resources for updating their knowledge. While, 10 medical, 16 dental, 4 pharmacy, 10 nursing, and 6 physiotherapy students uses it for learning and research, 8 medical, 6 dental, 11 pharmacy, 16 nursing and 6 physiotherapy students uses electronic resources of library for reference purpose, 13 medical, 14 dental, 15 pharmacy, 18 nursing, and 17 physiotherapy students uses library electronic resources for finding quick information. 11 medical, 12 dental, 12 pharmacy, 17 nursing, and 18 physiotherapy students uses library for

lending and borrowing of articles and books. whereas, 10 medical, 09 dental, 13 pharmacy, 18 nursing, and 14 physiotherapy students access e-journals and e-books for their assignment.

Table 5.8 Level of satisfaction for using library electronic resources and services

Level of satisfaction for using library electronic resources and services					
Particular	Medica l	Denta l	Pharmac y	Nursin g	Physiotherap y
multiple search result	14	11	8	15	18
slow internet accessibility	10	17	14	17	9
limited computers	8	10	5	18	8
lack of knowledge by library staff	11	8	10	10	11
difficult to find perfect information	13	18	16	14	15

The above table display the difficulties faced by the users to access electronic resources and services, users gave multiple answers for the question asked, so data were not given in percentage form. 14 medical, 11 dental, 8 pharmacy, 15 nursing and 18 physiotherapy students said that they got multiple result for one question asked that create confusion. 10 medical, 17 dental, 14 pharmacy, 17 nursing and 9 physiotherapy students faced the difficulty of low internet connectivity. 8 medical, 10 dental, 5 pharmacy, 18 nursing and 8 physiotherapy students said that there are less computer available in the library. 11 medical, 8 dental, 10 pharmacy, 10 nursing and 11 physiotherapy students face the difficulty to access electronic resources and services because their library staff do not have sufficient knowledge of accessing e-resources so that they cannot guide users properly. 13 medical, 18 dental, 16 pharmacy, 14 nursing and 15 physiotherapy students said that due to multiple answers they find it difficult to get perfect information and check the authenticity of the information.

6. Suggestions and conclusion:

Different libraries possess the electronic resources to some extent. Mainly more infrastructure facility and implementation of proper electronic resources are required in the paramedical college libraries. Overall sufficient electronic resources and services found in medical college libraries but to improve its accessibility, some suggestions mentioned here:

1. Although sufficient computer and internet available in the library users spend very less time in library.
2. Not more than 44% users spend more than 3 hours in libraries, so initiative should take to attract users by improving library services.
3. More users ask librarian to access information instead of using webopac, online database or library website because there is not much information available on the website or users do not aware with the services of the library. In this situation orientation helps to aware users with the services.
4. Users are using e-books, e-journals and e-thesis more than other medical database available in library, because they are not familiar with the database, library staff should guide them to use the medical database by explaining the technique of using it.
5. Users training help to improve the usage of library electronic resources and services. As maximum users do not know how to access information from electronic database.
6. Number of computer terminal should ne increased with proper Wi-Fi and internet facility.
7. More electronic resources should be implemented in paramedical institute, so that paramedical students also get the knowledge from world about their discipline.

Conclusion:

Due to advancement in technology, users prefer to access information from internet only. Therefore having electronic resources and services is essential for every libraries. Libraries should transform their traditional print material and traditional services into electronic form. Print books and journals are replaced by e-books, e-journals. Online database and e-thesis. Current research work was conducted on use of electronic resources and services by medical and paramedical students of Gujarat. The study indicate that more electronic resources and medical database are available that can help medical and paramedical professional to improve their knowledge. it is found that more professional are accessing information through electronic books and journals rather than using electronic database. Users are more concentrate in studying their syllabus work that derived from different books and reference material. They do not spend much time for accessing knowledge from other sources worldwide.

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