

A Study on Information Resources Collection, Usages and Services in the Gujarat University affiliated Medical College Libraries, Gujarat

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Abstract: *Medical Library plays a vital role for giving their services to the faculties, resident doctors, medical scientists, UG & PG students, researchers and health professionals. The main purpose of Medical library is to support medical education, including teaching and research with special focus on improved patient care. An intelligent and healthy brain requires evidence based accurate knowledge for healthy human being. So a well-equipped Medical library is an asset for promotion and advancement of health education and healthy brain. The collection storage and presentation of health information in most of developing and developed countries are made available through the established information centers, such as teaching institutions, departmental libraries of clinics and hospitals, research centers, medical association's libraries, and private foundation libraries and so on. Special Medical library is a library for setup of specialized collection information resources on a particular subject, and serve to their patrons and delivers particular services to the clients. More efficient service in Medical Libraries can be done use of ICT for maintain modern Medical information & resources. Libraries in a medical college is a depository of facts and information of investigations and the hub of information for knowledge sharing with medical professionals, researchers and students.*

Keywords: Medical Library, Information Resources, Gujarat University, Collection, Usages & Service

1. Introduction

The Information is one of the vital resources for those who can manage information resources effectively for decision making process, and to increase system utility. If someone studying the records of ancient and medieval period then in ancient times then found that libraries were functioning as a light houses for those who want to earn knowledge through reading and to extend the boundaries of various discipline. The Indian government has continuously sought to address health care challenges through investment in social sector. Medical education regulation is entirely centralized within Medical council of India (MCI) through an act of Indian parliament. No regional flexibility with respect to infrastructure and faculty eligibility is allowed. All rules set by medical council of India have to be followed strictly. As such for providing effective quality services to users medical libraries need to acquire information resources. Acquisition of resources of any kind involves investment of capital on the part of the present organization, the state Government for Govt. aided institutions and other self-founded trusts.

2. The Objective of Study

The main objectives of the present research are to find out

- Profile of the Gujarat University affiliated medical colleges and their libraries, in terms of the year of establishment, document collection, and average number of user per day, circulation statistics, library service & uses.
- Status of information resources, equipment and new technology available in libraries as per MCI norms and Adequacy of existing infrastructure services offered by library staff and equipment available in the libraries.
- To study the status of staff and other infrastructure

facility of medical college libraries.

- Study on frequency of visit and time spent in the library during each visit. Purpose of users visit to library, benefits derived from the use of library, reason for not visiting
- Budget allocation and financial management for the libraries. Finance utilization for library collection both print and electronic form, library infrastructure and library service.
- Information resources collection & their utilization use and patrons satisfaction. Libraries are preference of collection print, e-format, foreign publication and Indian Publication etc.
- To find out the status of IT infrastructure use as well as library collection, library operation and user services in Medical Libraries.

3. Scope of the Study

In Gujarat state, there are total 25 medical colleges affiliated under 12various University and they are running Under Graduate course MBBS, Diploma, Post Graduate courses MD/MS. Super Specialty DM/MCH medical courses. Gujarat University plays a vital role for medical education in Gujarat. There are six (06) medical colleges under Gujarat University affiliated MBBS, MD. MS and other Super Specialty DM /MCh courses. Every college has a library with good number of collections. Around 4000 students are getting enrolled for MBBS course every year at Gujarat.

List of Medical colleges affiliated under Gujarat University: Ahmedabad Municipal Corporation Medical Education trust Medical College, Maninagar, Ahmedabad, B.J Medical College , Asarwa , Ahmedabad GCS Medical College, Naroda Road, Ahmedabd, GMERS Medical

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College, Gandhinagar, GMERS Medical College, Sola Ahmedabad, Smt. NHL Municipal Medical College Ellisbridge Ahmedabad.

4. Limitations of the Study

The study area is limited to Gujarat University, Gujarat (India) affiliated allopathic Medical College Libraries i.e. Six allopathic medicine medical colleges located in different parts of Gujarat State. Generally Health education is related with Allopathic, Homeopathy, Ayurved, Dental, Nursing, Optometry, Physiotherapy, Pharmacy and so on. But the scope of this research is limited to only pure allopathic medical college libraries i.e. these institutes run only pure medical courses like MBBS, MD/MS, Diploma, and Super Special DM/MCh courses run under Gujarat University. All these Medical colleges under the Regulatory of MCI.

5. Review of Literature

Joshi, (2001) in his Study entitled "Veterinary College Libraries in Maharashtra". The author collection information about libraries use of questionnaire. The study results that collection of books were found not satisfactory. Journal subscription was not sufficient and the libraries were shorthanded staff. The researcher recommended that Indian Council for Agricultural Research and Agricultural Universities should regularly arrange training programmers for librarians.

Padmamma, et al., (2002), In his Study entitled "Evaluation of Medical College Library Sources and Services: A Study", found that majority of users were visiting library to ask books or journals collections. Textbooks were the most used resources. Most of the patrons were satisfied with physical services of library.

Bhatt, Atul. (2012), in his paper, identified that medical libraries with the advent of Information and Communication Technologies and Impact of Information explosion have brought many changes in various field of knowledge, especially in medical sciences which had profound impact on Doctors, Students, Residents and other health professionals, practitioners, in pursuing their academic, research and patient care. The medical professionals require on the board accuracy and quick information for updating their knowledge. The study evaluate the present status of library services in medical college libraries of Gujarat, examined the condition of library information resources in medical college libraries of Gujarat and with the present condition of library staff and other infrastructural facility.

Singh, Modan Mohan. (2013), In his book 'Reference source and services in library science', observed that Library staff's main duty is to assist library users and help them how to search information and inquiry as per their requirements. The final help to be collection may consist of reading material in the form of a book, journal and others collection in the use of specific searchable information resources such as the online catalogue, bibliography, full text database or simply factual information strained from the libraries print or online reference collection.

6. Methods

The study adopted the following research method during the research work.

Survey: The current study is based on descriptive method of research includes surveys and fact-finding enquiries of different kinds. It uses to collect detailed factual information that describes existing exceptional, to identify problem or justify current conditions and practices. It is a method or research or inquiry which is based on survey only. Many techniques are adopted by the surveyors to collect the factual data in descriptive research viz. Interview, Case study and Questionnaire techniques has been used. Personnel visit has been done to the Gujarat University affiliated medical college libraries for collection of facts and figures.

Interview: With structured and unstructured questions respondents are interviewed to collect data for the different system in use for the cases under consideration.

Literature search: Through comprehensive search of literature in the field of study primary, secondary & tertiary etc data are collected to substantiate the findings and sustain.

Questionnaire instrument:

The present study planned to find out the accessibility of information resources as per MCI Norms, examine the resources, services and facilities provided by the Medical Libraries, Readers are satisfied or not in the provided services in the Libraries, which functional techniques and methods used in Medical College Libraries in Gujarat.

7. Results & Discussion

The Research study has been carried in Library Department of all the six Medical colleges approved by Medical council of India affiliated to Gujarat University. Total response was received as 100% from all selected medical college libraries. Analysis of the data collected is based on the responses of these six medical college libraries. The responses to each question contained in the questionnaire are calculated and represented with the help tables, histograms and pie-diagrams. On the basis of analysis and interpretation of data, the findings are derived which are considered as fundamental in the process of sources and services study in Medical College Libraries affiliated to Gujarat University.

Response Rate

The questionnaire was circulated to all the six Medical college libraries. All the libraries responded to the questionnaire i.e. Response rate is 100%.

Year of Establishment

For the present study it is essential to know when the colleges were established, because as per MCI norms in the library. The library must have 7000 text and reference books. In a new medical college, the total number of books should be proportionately divided on yearly basis in five years. So collection of medical colleges depends their establishment year.

Table 1: Year of Establishment

Sr. No.	Name of colleges	Establishment Year
1	AMC	2009
2	BJ	1946
3	GCS	2011
4	GMERSG	2012
5	GMERSS	2010
6	NHL	1963

It is observed that B.J Medical college library is the oldest one and GMERS Medical College, Gandhinagar is the newest college among of selected Libraries (Table: 1)

Courses and Academic Focus

Among the respondent six medical colleges have given response and the data tabulated in the following table along with the Figure representation.

Table 2: Academic focus

Sr. No.	Academic Course	Total colleges	Yes
1.	MBBS	06	06
2.	MBBS & MD/MS	06	05
3	MBBS, MD/MS & MS/MCh	06	02

In table.2 describe the result is summarized for academic focus of selected colleges: 06 (100%) college are runs MBBS course, 5 (83.33%) college are runs MBBS & MD/MS courses and only 2 (33.33 %) medical college runs MBBS, MD/MS and MS/MCh courses.

Library Timing

An attempt has been made to find the library timing of the respondent libraries of Medical Colleges affiliated to Gujarat University.

Table 3: Library timing

Sr. No.	Name of the Libraries	Library timing (Monday to Friday)	Library timing (Saturday)	Working Hour per week
1	AMC	8:45 AM-5:00PM	8:45AM-01:00PM	37.15
2	BJ	09:00 AM-06:00PM	9:00AM-01:00PM	40
3	GCS	09:00 AM-08:00PM	9:00AM -01:00PM	48
4	GMERSG	09:00 AM-05:00PM	9:00AM -01:00PM	36
5	GMERSS	09:00 AM-06:00PM	9:00AM -01:00PM	40
6	NHL	09:00 AM-07:00PM	9:00AM-03:00PM	46

The table3 shows the classification of library timing for user circulation, reading and services. It is observed that B.J. Medical College and GMERSS, medical college libraries are kept open 40 hours in a week, AMC and GMERSG libraries are kept open between 36-38 hours. Only 2 libraries are kept open for above 45 hours in a week i.e. GCS college library and NHL college library. It is observed that most of the libraries are kept open more than 8 hours per day.

Table 6: Budget for last 5 years

Sr. No.	Name. of Libraries	Budget allocated Year 2012 in Lakhs	Budget allocated Year 2013 in Lakhs	Budget allocated Year 2014 in Lakhs	Budget allocated Year 2015 in Lakhs	Budget allocated Year 2016 in Lakhs
1.	AMC	No Respond	No Respond	35	70	40
2.	BJ	300	25	No Respond	10	260
3.	GCS	No Respond	No Respond	No Respond	No Respond	No Respond
4.	GMERSG	60	50	45	65	56
5.	GMERSS	No Respond	No Respond	No Respond	No Respond	No Respond
6.	NHL	31.86	34.35	34.07	38	41

Strength of staff

For the present study it is essential to know the strength of Staff available (Professional, Para- professional and Non-Professional) in the colleges.

Table 4: Number of Staff

Sr. No.	Category of Staff	AMC	BJ	GCS	GMERSG	GMERSS	NHL
1	Professional	2	5	2	2	4	3
2	Para-professional	1	0	3	1	2	0
3	Non-Professional	2	7	2	1	4	3
	Total	5	12	7	4	10	6

The table 4 depicts BJ Medical college has the highest strength and the GMERSG medical college the lowest strength of staff

Number of Library Users:

Survey was conducted to find the number and category of library users. All the 06 respondent libraries Students user are highest number at NHL Medical college library. Followed by BJ Medical College Library, AMC Medical College Library, GCS medical college library and GMERSS medical college library has the lowest.

Library Collection

a. Books

The number of books- print volumes and E- books available with the libraries.

Table 5: Books

Sr. No.	Name of Library	Print Books	E-Books
1.	AMC	13250	150
2.	BJ	45000	1200
3.	GCS	13472	No Respond
4.	GMERSG	9727	2538
5.	GMERSS	11726	2500
6.	NHL	19739	No Respond

The respondent libraries as seen have print volumes ranging from 9727 (GMERSG) to 45,000 (BJ) and they satisfy the MCI norms. Availability of E-books is not satisfaction in most of the libraries except in GMERSG where the number is 2538. This indicates the poor utility of E-books

Library budget:

For the present study it is essential to know the budget provision for library Development and Collection Development. The impact of Information and communication technologies on libraries has brought structural changes to library practices and collection development. Effective library management and provision of services depend upon the availability of adequate funds.

The table:6 shows that two libraries did not respond regarding budget utilization in their library. It is observed that for maximum respondent libraries the minimum budget range is between 10-50 Lakhs and maximum range between 50-260 Lakhs. BJ Medical College used maximum fund for Library in the year 2016 and minimum fund utilized by AMC medical college for Library budget for the year 2016. It is observed that for responded colleges, there is no any rule or method for budget allocation in every year.

Current Journal Collection:

Journals collection is very important to know how many Journals collected by selected library. In the following table describe the Journal collection information

Table 7: Current Journal Collection

Sr. No.	Name of Library	Print journal		Total print journals	Bound Volumes	E-Journals
		Int	Nat			
1.	AMC	45	64	109	884	13
2.	BJ	-	35	35	15165	133
3.	GCS	95	199	294	-	424
4.	GMERSG	34	72	106	-	-
5.	GMERSS	33	74	107	150	42
6.	NHL	57	49	106	8316	-

The number of current journals in the respondent libraries ranges between: 33-200. Subscribed journals are of two types i.e. International and National. Subscription rate of journals in GCS Medical Colleges the highest and BJ medical college has the lowest.

Other Collection

Library strength depends upon aspect collections. All types of collection like Print form and E- format the library can fulfill the users need. In the present study on attempt has been made to know how many other collections are available in medical Libraries.

It is observed that all respondent libraries have CD and DVD collection. Highest number of CD –DVD is available in the AMC Medical College. The range of CD-DVD collection ranges between 200-1200. It has been seen that BJ medical college has consortium based E- resources collection (Gujarat State Virtual Library Medical Consortium). NHL Medical College has Medical database E-CD ROM Ovid Collection for E-books and E- journals. As per MCI amended rule 2017 a Medical College should have skill labs and adopt information technology in teaching medicine. E-Library of responded Medical colleges is found to be in initial stage in the study undertaken.

Library Collection Development Policy:

The study attempt to know the status of Collection Development Policy in the medical college libraries.

Table 8: Collection development policy

Sr. No.	Collection Development Policy	No. of Libraries	Percentage
1.	Yes	02	33.33 %
2.	No	04	66.67 %
	Total	06	100%

Most of the libraries it is observed that do not have collection development policy indicating the static

Library Services

Table 9: Name of Software

Sr. No.	Name of Library	Software
1	AMC	SOUL 2.0
2	BJ	No
3	GCS	Own house Software
4	GMERSG	Koha
5	GMERSS	No
6	NHL	SOUL 2.0

For the present study it is essential to know out of 06 Medical Libraries, 04 respondent libraries are automated with various software, which software is using for 04 Automated Respondent Libraries.

The table 9.gives the names of the Software used. 02(33.33%) respondent Libraries are using SOUL 2.0 software, 01 (16.67) Library is using Koha software, 1(16.67%) Library is using own house developed software and 02 (33.33) Libraries are yet not automated. It is observed the mostly Libraries use different Library Software's for management of housekeeping library operation.

Data Collected regarding the services provided by the respondent libraries of Medical College affiliated to Gujarat University for user. It observed that all 06 (100%) libraries provide Borrowing, Reprography Reference services, and Internet service. 03 (50%) libraries provide Inter library loan service. No library provides Outstation Membership service. 03(50 %) libraries provide Advisory services. 02(33.33%) libraries provided CAS & SDI. 05 (83.33%) libraries provide User Orientation service to user,. 4(66.67%) libraries provide Newspaper clipping. 03(50%) libraries provide Literature search service. 2(33.33%) libraries provide Bibliography service. 2(33.33%) libraries provide Abstracting & Indexing service, and 03 (50 %) libraries provide User tutor /User education for e-resources service.

8. IT implementation in Library Services

Library Automation

For the present study it is essential to know how many respondent libraries are automated because the Automation has greatly enhanced the efficiency of library services. Computers are used to provide various Library services and to perform the routine, repetitive and clerical jobs.

Table 12: Library Automation:

Sr. No.	Library Automation	No. of Libraries	Percentage
1.	Yes	4	66.67%
2.	No	2	33.33%

The table12 shows the distribution of library Automation Response given by respondent libraries.04 (66.67%) Respondent libraries have implemented Library Automation and 02(33.33%) Respondent Libraries are yet to go for automation.

Digital Library or E-Library

It has been attempted in the present study it is important to know out of six Medical Libraries apart from print library what is the status of digital collection and how to manage their e- collection.

Table 10: Digital Library or E-Library

Sr. No.	Name of Library	Digital Library	E-Library
1	AMC	No	Yes
2	BJ	No	Yes
3	GCS	No	Yes
4	GMERSG	No	No
5	GMERSS	No	Yes
6	NHL	No	Yes

Above table. 10 shows that all respondent libraries have not yet installed digital library software for management of their e- collection But It is observed that 05(83.33%) libraries have E- collection and they are managing their e- collection through E- Library.

Computers & Internet Facility

Internet facility is the most important facility to the user as per MCI norms for use of MEDLAR/Medline facility. Today various library documents, journals are available in electronic form.

Table 11: Computer and Internet Facility

Sr. No.	Name of Library	No. of Computer with Internet facility
1.	AMC	40
2.	BJ	10
3.	GCS	73
4.	GMERSG	55
5.	GMERSS	30
6.	NHL	15

The table No. 11. shows the all 06 (100%) libraries have computer and internet facility & it is observed that all selected libraries have internet facility with computer terminals ranging from 10 to 55.

User Details

a) Frequency of Users

In the present study evaluating the use of library and information system is one of the major concerns and an integral part of respondent Library.

Table 13: Frequency of Users

S. No.	Name of Library	Daily	Weekly	Fourth nightly	Monthly
1	AMC	50	300	700	1300
2	BJ	35	200	500	900
3	GCS	80	450	800	1500
4	GMERSG	50	250	600	1100
5	GMERSS	80	450	850	1600
6	NHL	300	1500	2200	3000

The table: 13 shows that monthly highest numbers of users library visit to the NHL. Library and lowest number of user's library visit to the BJ Library. It is observed that variety of offered courses and seat capacities of responded colleges affect the increase and decrease the percentage of user visit.

Frequently use library Document:

In the present study it is important for collection development policy and user feedback to know the type of collection the medical students prefer for their study. It is observed that every user of respondent library needs Print book, E- book, Print Journals, E- Journals for their academic needs. Books and Journals are important resources for the students.

Sufficient of library resources:

For the present study it was essential to know whether the library information and resources are sufficient to their users because users need specific and academic related information

Table 14: Sufficient resources

Sr. No.	Respond Status	No of Library Percentage
1	Yes	3 (50%)
2	No	2 (33.33)
3	Somewhere Yes	1(16.67%)
4	Somewhere No	0
	Total	100%

It is observed from the table 14 that 3(50%) libraries have sufficient information to their users, 02(33.33 %) medical libraries respond is No. 01(16.67%) Medical library responded as Yes/No and there is none to say 'No' categorically.

Findings of the research study are as follows:

- 1) It is observed that BJ medical college library is the oldest from selected six medical college libraries.
- 2) It is found during survey that all selected medical are conducting MBBS course and most of the users of their libraries are students perusing MBBS course.
- 3) Library timings of the selected medical college libraries are kept open more than eight hour in a day. Users are visit library regularly, while some of the users are visit the library fortnightly.
- 4) No limit has defined for sanctioned budget by either parental college or other sources to the Medical College libraries.
- 5) Most of the collections are print collection of the medical college libraries.
- 6) Users are depends on text books for their academic course.
- 7) Current Journals being subscribe in all six selected medical libraries but subscription number of current journals depends upon the allocated budget and users demands.
- 8) It is found that apart from print collection all six libraries are also subscribe CD/DVD in their libraries. The old Dissertation & Thesis collections are also available at NHL Medical College Library.
- 9) During study survey found that most of the UG & P.G. students are using information sources for their study purpose, while DM and MCh Super specialty users are using library information resources for their Exam, Research and Project work.
- 10) It is observed from the study that majority of P.G. students use tertiary sources of information for their study but research scholars use primary sources of information for their research work.

- 11) Only 2 (33.33%) libraries are having Library advisory committee.
- 12) Selection of library materials they are totally depends on academic syllabus and users demands .No one libraries have a collection development policy.
- 13) All six Medical libraries found arranged text books through DDC classification and academic subject wise. Current journals are organized through alphabetically.
- 14) All libraries provide lending, reprography, reference and internet service facilities to their users.
- 15) On the point of implementation of new technology for maintain of library housekeeping operation 4 (66.67%) libraries are installed library automation software and 2(33.33%) libraries are yet not go for automation.
- 16) For Digital library facility system is not implemented in any selected Medical libraries. E- resources for e-books and e-journals is available in their libraries.
- 17) It is found that majority of the users are taking help from Internet for locating their information needs, than consulting their classmates.
- 18) It is also found that most of the users are visiting to library for borrowing books and consulting periodicals.
- 19) For keeping users record and library service all respondent libraries are having login and other register.
- 20) The result shows that library has sufficient Information Resources as per requirement of the users.
- 21) Analysis shows that academic print collections or syllabus text books have been consulted by majority.

9. Conclusion

Medical libraries are attached with medical colleges and main motto is education, research and patient care. The study concludes that majority of the users visit the library regularly for their study/ research/teaching purpose and for borrowing books. They are satisfied with the library collection and they prefer books, journal and internet facility for locating their information needs. Availability of satisfactory information resources helps the users in their study and research work. It is a strongly established fact that a library and information center is the blood life of any institution and it is the same case in medical libraries. It helps in solving the problems of various patient care through better information service to public. So in a medical library, need to available sufficient print and non-print material in all times so that users face no problem in obtaining necessary information.

An information age is a great turning point in the history of civilization. The day has arrived when it is most important to learn to access, analyze apply and evaluate such information. In each library there must be effective services and collection development of information which needs proper planning, timely implementation and periodical evaluation. The librarian with the administration has to set the priorities after analyzing the current status and future requirements.

Selection of the resources and to give services according to the requirements of the users, the medical library is plays an important rule for search needed documents and retrieve information to any users. For enhanced their collection and services to their patrons, librarians must have apply the MCI norms and Gujarat University guidelines. Management of

institutes also gives all infrastructural facilities to the institute and especially for the medical libraries.

10. Recommendations

- 1) More E- collections and E- Medical databases should be added in the library with print materials.
- 2) Library should be fully automated and all housekeeping operations like- acquisition, circulation, OPAC, WEBOPAC facility, serial control, catalogue etc done through automation software.
- 3) Library should be own website so that any user can access it any time and from anywhere.
- 4) Library should kept Institutional repository like scholarly output of researchers, annual reports, newsletters, new bulletins, old question papers, academic syllabus, faculties' class notes etc.
- 5) Introduction of Digital Library.
- 6) Library timing a problem so it should be extended to round clock i.e. 8:00 AM to 8:00 PM.
- 7) Sound prove reading room should be provided for their students and faculties.
- 8) Orientation programs should provide in the library regularly so the users may be aware about the library and its services.
- 9) The e-resources should be provided to the users through remote login
- 10) More technical library staff should be appointed for providing better library services in modern way.
- 11) Latest and updated books/journals should be acquired by the collection development policy.
- 12) Introduction special collection for multimedia, Live OT and Audio –Video resources etc.
- 13) Medical library should introduce digital notice board for display academic events and new arrival.

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