Information Use by the Medical Faculty and Practitioners at Institute of Medical Sciences, Bhubaneswar, Odisha – A Case study

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Abstract

In medical institute libraries, modern technologies are used in a large number to collect, store, retrieve and disseminate a huge amount of information to facilitate the faculties and practitioners in their day to day class room practice, research works, and health care practices. Different databases are being developed by medical institutions, different associations, some agencies, and various publishers to provide the latest information through the websites. In this paper, it is emphasized to determine the knowledge of faculty members on electronic resources, access to computers, use of electronic resources available at the Medical Sciences Library (MSL), and attract the faculties towards the library for better teaching and better patient care. It also focused on the rate of library resource among the faculties to improve the information management in the central library of Institute of Medical Sciences and SUM Hospital under S ‘O’ A University, Bhubaneswar. This paper also examines the clinical information need of the health practitioners.

Keywords: Information Practice, Knowledge Interpretation, Finding and Suggestion.
Introduction:

Information makes a man powerful. Everyone needs information and information should reach at each and every person. Information also shows a certain life phenomena that its value will decay gradually over time. Information can be collected from one or more sources and also distributed individually or to the whole community. This sometimes involves those who have a stake in, or a right to that information. Information Science generates various terms such as: Information seeking, Information retrieval and Information behavior. We must admit the present century as the “Digital Era”. Some of the professionals agree with the present situation as the age of information, where information and knowledge are the basic resources and access to them is a necessity. In this electronic information era, digital technology, growing popularity of internet and the tremendous growth of digitized products, digital libraries offer a huge range of multimedia information which includes some of the information on movies, speeches, images and photos to sounds, text and beyond. Wilson defines models of information behavior to be “statements, often in the form of diagrams that attempt to describe an information-seeking activity, the causes and consequences of that activity, or the relationships among stages in information-seeking behavior” (1999:250).

We the professionals must admit libraries are as old as worldwide civilizations. “Jesse Shera” has commented that history is the “logical starting point for almost every inquiry into the nature and function of the library as a social agency”. “Pierce Buttler” narrated that “librarianship, as we know it, can be fully apprehended only through an understanding of its historic origins”. The relationship between the library and society is a dynamic one, and the history of libraries must be studied which relates to the education, society, national economic standard and political situation of the community.

Andrzej Chmielecki describes in What is Information that “there is a striking paradox in contemporary brain and cognitive science. Their purported fundamental category of information either is not defined or is used in a Shannonesque sense, which is unable to account for the processes of regulation and control when content, not the quantity of information, is concerned”. He is interested to make implementation of more adequate formula which is applicable to broad system areas and commonly understood as informational systems.
Jennifer Dismukes in her article (How can medical libraries become more relevant in the age of digital information) recommends that social networks have a vital role to bring the right information to their users. These networks also help the practitioners to acquire knowledge in their careers and better treatment of all patients, regardless of health literacy level, by developing training tools and association with other institutions. The library professionals as well as the health care professionals should aware of the latest technology through which information can be retrieved.

Burnham and Peterson (2005:39) defined health literacy as “the ability to obtain, read, comprehends, and uses health information to make appropriate decisions”. The development of appropriate and effective health communication has two main goals. One is the enhancement of the role of information in health care facility and second one is to discard the disparities in health and health information among the individual and mass (Alpi and Bibel 2006:275). The information centers have significant role in the distribution of health information and the promotion of better lifestyles. Therefore, the library and information science professionals should strive to meet the health need of the community.

Medical libraries have been evolving in consonance with the development health care services and institutions. The knowledge of general librarianship is good enough for the nature of professional service required for medical community and institutions. The health institutional libraries have the importance to disseminate information for different user groups in variety of settings in the teaching medical institution. There is a notice for information service where we are likely to develop the quality and critical appraisal of the relevant literature. There is a need to gather some skills to learn for efficient and effective service to the health care community. It is required to consider the medical librarianship as specialization program from general librarianship.

According to Oliver Wendell Holmes, Man’s mind, once stretched by an original idea, never again retains its original dimensions. Meanwhile health sciences libraries of today play more significant role in both formal and informal CME (Continuous Medical Education) milieu. These options can be implemented within the library itself or beyond, extending the notion of the library “without wall” and taking the librarian and library services to the user’s work profile. CME has also a great impact on the health care situation. It helps the students in learning process.
and also puts a support to the faculties of medical education in the field of teaching and research. Better professionals in the clinical field have a good hand in the patient care receive different knowledge through this programme. Health sciences librarians have historically viewed disseminating information to health professionals as a major role. Typically, they have provided individualized services and are among the professions that help health professionals further their education after completing formal education. Health professionals who need information immediately or who wished individual learning used the library while those who wanted to hear eminent colleagues tended to use CME programmes.

Implementing of Information Technology in the Information centers called digitization. The libraries well equipped with electronic resources are accessed as digital library. In this library the users can get all the information of the concerned library through electronically. It includes collection, dissemination, report and all reference service. Ravichandra Rao mentioned that the experiment has been introduced in DRTC and INSDOC on use of computers in library and information field in India since mid-1960s. It had the objective of developing the productivity in library management. In present scenario, the librarian who is called as information scientist or documentaries who manages and assembles the IT based library, combines the functionality for information, planning, data management, knowledge management, electronic information services, co-ordination and multimedia access and retrieval. The basic function of a Digital Library is to facilitate access to information within the time period to the critical wants of end users. To find the right information at the right time, the research, education and training, learning and developmental work and disseminating to the user in required format are the basic requirements of modern library.

Implementation of IT in library and making digitized to the information centers is a great challenge. As the present age is the electronic age, the library professionals and the users are familiar in handling the electronic instruments. The research scholars and the teachers of various fields are very much dependent on the electronic information systems. The advantage of digitized libraries as a means of easy and rapid access of books, archives and images of various types are now widely appreciated by the public bodies with a commercial interest. The libraries may have interest to adopt the innovations in technology to provide information to their users on the improvements of e-Books and digital resources electronically. The present libraries are
introducing blogs and wikis for better communication with the users. The user accessibility is increased by the advance electronic development. Digital libraries also take part in the available growth of individuals who might not be patrons of a library traditionally due to geographical location or organizational affiliation. The electronic resources may be used by a number of institutional patrons at the same time, which process we can name as consortia. We must agree with this fact that the traditional libraries have no much space for stack but this is not a barrier for the digital libraries because digital information can be stored in very little physical space and digital storage technologies are more affordable than ever before. The image quality and the object characteristics should be improved in order to meet the challenges of the digital library. Automation of libraries put importance on the authenticity and removes visible flaws such as stains and dislocation.

Institute of Medical Sciences & SUM Hospital was established in several years before with the objective to develop patterns of teaching in undergraduate level. It helps students in attaining the competencies and character required to live up to the highest principles of the healthcare profession. This institute has the strength of 100 intakes per year for undergraduate students and 19 students are getting admission to the post graduation course in pre clinical and non clinical subjects. It has a well equipped library with more than 12500 books (Both text & reference). The library has more than 300 seating capacity at a time. One external reading room is available to facilitate the students for better refreshment. This institution library has computerized information management system, which allows immediate tracing and retrieval of any publication in its premises. It has the facility to access more than 10000 e-journals through PROQUEST database and EBSCO Medline. The faculties are using the library for better teaching to the PG students and to establish themselves in research and development. The institute has a Wi-fi campus with 1024MBPS connectivity through National Knowledge Network. This institute is attached with a 750 bedded hospital. The hospital statistics for the year 2012 tells that there are 901 out patients come to this hospital per day and 61 casualty attendance per day in the year 2012. This has a state of the art conference hall with all modern facilities and interactive boards. The conference hall is connected to Modular O.T complex through audio visual connections to demonstrate the live operation procedures. This institute is one of the premier institutes in the state of Odisha in the field of medical education. Now this institute runs under the “Siksha ‘O’ Anusandhan” deemed university.
Objective:

1. To discover how faculty members perceive information literacy.
2. To find out the response of the faculties to the Information Technology implemented in Library.
3. To evaluate the influence of library on the faculties.

Methodology:

The present study is primarily associated with the impact of information management and ICT applications service among the teaching faculties of IMS & SUM hospital, Bhubaneswar, Odisha, India. There are 125 professors and 108 assistant professors are working in this medical college and hospital. I have met many of them to elicit required information for the purpose. A structured questionnaire with both close and open ended options is administered to collect both qualitative and quantitative information from the respondents relevant for the study in the light of their observations and experiences. The relevance and utility of each item is carefully examined.

Data collected through the schedules is scrutinized and their consistency is checked before the necessary analysis is done. MS-Excel 2007 is used for data processing work. Data collected is classified; codified and suitable charts are prepared to analyze data.

Hypotheses:

This paper considers the following hypotheses.

1. This medical institute has a well equipped library with the required electronic information system and services for better dissemination of health care information
2. This library is up to the expectations of the teachers, physicians and health care researchers.
3. Evaluating the present health care information scenario will certainly improve the medical library service in the community.
Discussion:

Information is no doubt an important aspect for each and every individual. The faculties and the health care practitioners also need that information to meet the best of their practices and to deliver a lecture in the classroom and guiding the medical students to perform better result in future. No doubt, the print books and the journals are very much essential to meet the basic requirement. Still some other materials are necessary for the faculty members to reach at the necessary information (chart – 1).

![Source best to meet your information](chart-1)

There are different barriers to access information. Time is such a factor for the faculties in health care profession, where the faculties don’t get so much time to use the information centers frequently. Still they need the recent activities of the centers and the outcomes of various researches. The following chart - 2 indicates the finding of the barriers to information among the faculties.
The faculties need information for better professionals. The other factors may not put impact or may not be required. The health science professionals are busy in teaching, research and patient care. Family medicine is such a factor which includes physicians, patient reminders, treatment planner and patient education. Application of information technology in the information services put a significant difference in clinical trials. To manage care and improve quality, primary care computer systems should incorporate the information services which are shown in the chart - 3.

The clinical value of information makes a health science professional richest in the concerned field. It helps the faculties in teaching and also in patient care. Now any one can access the
required information with the help of Information Communication Technology (ICT) for their need. This system helps the researchers and the teachers to have a clue in handling a clinical situation and they can refresh their memory to deliver a lecture in the class room and help the students to perform the practical classes. The research scholars also need the current information which is available in the internet. This chart - 4 shows the finding.

sometimes the clinical situation changes during health care practice. This situation occurs while behavior support programs are changing. Major difficulties arise when evidence and clinical guidelines has its role into routine daily practice. There is a need to gain present knowledge about initiatives to change medical practice. Substantial evidence suggests that to change behavior is possible, but this change generally requires comprehensive approaches among the health care practitioners. Evidence shows that none of the approaches for transferring evidence to practice is superior to all changes in all situations. In this study the applied clinical situation analysis has emphasized that the effect of treatment interventions should be evaluated in part of the basis of whether changes of diagnosis, social, choice of test, change of drugs or applied importance have been achieved. My findings are reflected in the following mode (chart - 5).
In this concern we have to find when a medical practitioner needs clinical information. Here I found more than 51% in my study require a clinical help after examining five patients. More than 10% need this information after one or more every patient. Nearly 15% have to get information after one or more every two patients and 13% health practitioners need clinical information after one or more every three patients. These findings are as follows in chart - 6.
According to Nelson Mullins “Our information management practice spans internal and outsourced operations and the processes and documents that govern them, corporate transactions and contractual relationships and all manner of disputes. The practice focuses on all existing and emergent areas of information-related risk, but currently can be summarized in terms of five components, each of which plays a vital role in information management”. According to Wikipedia, “information management (IM) is the collection and management of information from one or more sources and the distribution of that information to one or more audiences. This sometimes involves those who have a stake in, or a right to that information. Management means the organization of and control over the structure, processing and delivery of information”. This definition is accepted by AIIM. In present situation we have to access both the physical and electronic information. In this connection Information Management is the organizational ability to acquire, organize, store, and disseminate the right information to the right people at the right time. I found the Information management practice among the faculties of this medical college which is shown in chart - 7.

![Chart - 7](chart.png)

We know knowledge develops in sharing. Health care professionals, researcher, teaching faculties are also in this trend of sharing. Some different types of information also dominate the
professionals in their concerned field. I found both sharing and dominating result among the faculties which put a significant impact on the society. Where more than 66% of interviewer agree with the professional information dominating health care profession, where as more than 56% agree with the research oriented information dominate the profession. More than 61% of faculties agree with sharing of the professional information and about 64% also require sharing of research information. Chart - 8 and chart – 9 shows the details.

ICT based environment helps the faculties to take advantage in teaching, because there is a huge difference between classroom teaching and online teaching. One can share personal experience through different social sites which makes the class more enjoyable. This system enables the students and the teachers to feel more connected to the distance learning. Case studies and the
role plays can be used in online teaching in order to provide current problems. The discussion forum will be used to enable to solve the problems through the groups. Online learning gives anyone an opportunity to share the discoveries with others. How the faculty members adopt the information management skills in the library is reflected through this chart - 10.

![Chart - 10](chart10.png)

**Suggestion:**

- As per the study the faculties with the help their experience the students and institute can maximize its goals.

- All faculties including professor, asst. professor and health care practitioners visit library regularly. This will help them to keep up to-date information about the library activities. Some of the professors are not satisfied with some of the service of the library. The library should improve the services to facilitate the faculties.

- E-resources are key assert of any library in the digital era. It gives the up-to-date information and the institutions has full of e-resource. All the faculties are facilitated for browsing the e-resource and they also keen for browsing those resource for academic and research purposes.
• The institutions library has provided all library service including technical and traditional to the user. All most all the faculties are satisfied with the service provided by IMS and SUM Hospital Library.

• Institutions repository play an important role in the library in the current environment, where institutions intellectuals are being preserved i.e., pre and post conference / seminar report, study materials, question paper, etc. The institute library have an institutions repository, it preserves study materials, question paper, model question papers for upcoming examinations, conference/seminar proceedings etc into these repository. The faculties and students are using this repository frequently for their research and academic purposes. It would be more beneficial the users, if the institute library archive or preserved audio video lecture into the repository.

Conclusion:

The health institutional libraries are determined to help the doctors, working health professionals, future professionals, consumers and medical researchers to find health and scientific information to improve, update, assess or evaluate health care. Usually the medical libraries are found in medical schools, hospitals or in health associations. The medical library has provision to access MEDLAR, a huge storage of e-resources, online and hard copy journal collections along with reference collections. The progress of open access and free searching via Google and PubMed has a major impact on the way medical libraries operate. The Institute of Medical Sciences and SUM hospital has the one of the best library among the medical college libraries in Odisha. The institute library has a good collection on the best health information in the society. It also provides better access to those resources to the users. This library also subscribes online resources from the national and international reputed organizations. All the faculties and related staff are effectively exploiting the library. The library provides all sort of traditional along with digitize facilities given to its user.
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