A proposal for Clinical librarians in the era of Evidence based healthcare, a need but a neglected profession: an experience.

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Abstract
Medical library services ensure that health care providers have access to authoritative, accessible reliable, relevant, accurate, up to date and timely published information that enhances the quality of care. Due to the need of medical professionals for high quality information, medical libraries have been the early adopters of electronic resources to provide information and services. Increase in the use of information technology turns large volumes of information into practical guides. Finally, evidence-based medicine can be understood as a medical "movement", where advocates work to popularize the method and usefulness of the practice in the public, patient communities, educational institutions, and continuing education of practicing professionals. Evidence-based medicine (EBM) is the process of systematically finding, appraising, and using contemporaneous research findings as the basis for clinical decisions. The move towards Evidence based medicine or health care has been seen as a great benefit to health care librarians. The need for literature searches and critical appraisal of the results has led to librarians taking on new skills and relearning old ones. The realization of an evidence-based health service presents opportunities for libraries to make a direct contribution to the decision-making process in the delivery of health care as clinical Librarians by demonstrating their unique information and knowledge management skills. The recognition of clinical librarian or an evidence-based librarian will have an effect on current hospital based library practice.

Key words: Evidence Based Medicine; Clinical librarian

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Introduction
Evidence based medical practice helps to ensure that right treatment is given to a right person at the right time. The role of a medical librarian has become increasingly complex due to the explosion of information and academic health centre libraries have moved rapidly to take the advantage of these new information and telecommunication technologies and are therefore increasingly becoming virtual and digitized. The librarians and the libraries play a vital role in providing the health care professionals with evidence based information by being well equipped with the necessary skills, tools and resources at the point of care and by providing the faculties, residents and the staff with evidence and offering best care to the patients as well as support in research and education, thus giving rise to the need and concept of a clinical librarian in the era of evidence based medicine.
Clinical librarianship is a specialized medical library service which has originated in early 70s and its proponents are known as clinical librarians. Through the advent of the Internet and the free availability of MEDLINE by the NLM, US, access to the medical literature has changed dramatically as has the interaction with librarians as the professional navigators and there has emerged a need for clinical librarianship. This concept was first introduced by Lamp at the University of Missouri-Kansas City Medical Library and was described at the 1973 MLA annual meeting, giving the new face to medical libraries "we take the library to the user out of the walls." Librarians could improve the safety of medical care through greater participation in patient safety initiatives. Thus clinical librarians take the library and the librarian’s skill to the point of care, and provide clinicians with evidence at their desktops that help them offer the best care to patients. Today in developed countries clinical librarianship has been given higher priority in many centers but in developing countries like India, where it would prove to be boon, the practice of clinical librarianship is still a new term. Unlike other library professionals, librarians in health science libraries require expertise and values in
handling ICT and should possess an in-depth clinical knowledge. As such in fulfilling professional’s roles that supports health care, there is an urgent need to redefine and restructure courses especially those meant for medical librarianship so as to meet the needs of the 21st century and the years to come. Barriers to availability and accessing information by clinicians required to practice evidence-based health care has been identified as:

- Budgetary constrains.
- Time: Clinicians have recognized that the searching process can take two hours out of their busy day.
- Uncertainty about the resources and services available to them from the institute library as well as on World Wide Web.
- Improper training and skills needed to search the most relevant database and the most effective way in which to search it.
- Poorly motivated medical librarians.
- Improper training in the usage of ICT facilities.

Objectives

The objectives were to

- Assess which aspect of the clinical librarian services was used.
- Evaluate the effect of biomedical literature search training patterns on the library users including faculties, residents and other clinical staff.
- Evaluate the usage of the e-resources subscribed to by the institute’s library after training.
- Examine whether information searching skill training has affected skills and confidence among the clinicians.
- Explain some of the factors affecting the working of the clinical librarian, and whether an attitude towards the clinical librarian has changed.

Materials and Methods

SGPGIMS is rated amongst the top medical institutions in a developing country like India, delivering state-of-art tertiary medical care, super-specialty teaching, training and research since 1987. Dedicated faculty members endeavor to provide quality education, patient care and research and strive to meet the challenges and needs of the society. This Institute offers DM, MCh, MD, PhD, Post Doctoral Fellowships (PDF) and Post Doctoral Certificate Courses (PDCC), and Senior Residency in various specialties in the field of medicine and related areas thus having a clientele of around 1000 health care professionals involved in academic activities besides patient care services. It is known to be the first hospital of its kind in the public health care sector in India to adopt the latest IT technology for health care delivery through the school of telemedicine and bioinformatics which started in the year 1999. It works through continuous interaction between librarians, telemedicine professionals and physicians to provide highly filtered and quality health information to patients and the physicians at remote areas or beyond geographical barriers i.e. Tele-Consultation and Distance education. The Central Library is accessible twenty-four hours a day, with a rich collection of more than 60514 items comprising books, bound volumes of journals, periodicals both print and online.

Services and workflow of the librarian

- Support for evidence based clinical practice
- Research support for patient care
- Support for journal clubs
- Literature searches
- Access to electronic and print resources
Apart from rendering conventional services the librarians also renders non conventional services like electronic article / literature delivery at the desktops of the clinicians. The clinicians after taking their rounds in the wards frequently ask or send in their queries to the librarian over an internal communication network. Once a question is received, the librarian then discusses the interviews the clinician to make certain clarifications. After a brief conversation the librarian will have a very clear concept of what the clinician needs. The librarian will then translate that concept into a Medline search which is a process that requires expert searching skills and the required information is delivered to the physician concerned at the earliest over the internal communication network itself. The clinicians then further request full text articles from the filtered results. The workflow can be seen below at fig. 1. It has been seen that if the clinicians were educated trained towards the usage Medline and other e- resources subscribed by the library.

**Fig. 1.**  Electronic Articles Delivery - Work Flow Diagram

**Initiatives taken by the librarian**

Good infrastructure is a prerequisite to the use of e-resources. In our institute all the subscribed e-resources, as well as open resources, are accessible to the users through a computer network for the entire campus including offices, libraries, laboratories, wards, OPD and residences which is an efficient way to ensure the availability of e-resources all over the campus around the clock. The bandwidth of the institute’s network is 2mbps and is likely to be upgraded to provide a minimum 100 mbps on every node. In has been shown that the information in electronic form, using various platforms and databases is available on the campus wide network but that users may not have time to search effectively or that they are uncertain about the services and resources that are available to them from the libraries. Initiatives and effort has been taken by the librarian to make maximum utilization of the e-resources so that the institute meets its goal through introducing innovation in teaching, increasing timeliness in research as well as creating value in patient care in terms of diagnosis, test and treatment.
Initiatives taken were as follows:

- Face to face interaction by going out and taking the library to its users in order to make them aware and to teach the utilization of the e-resources and other databases subscribed by the library in the form of visits to various departments in the institute, wards, laboratories, OPDs etc.
- Promotion and marketing of library resources through emails /intranets to all the library users regarding any new subscriptions, newly added services, trials of any database, training programs, online information tutorials etc.
- The library had organized a training session at the end of May for marketing of the subscribed e resources and databases using vendors who offer on site training in order to promote their databases.
- In the month of July and October the librarian participated as faculty in orientation programs organized by the institute twice in year.
- Link Out service via Pubmed started in the month of September along with a training session. Link Out allows participating libraries to link directly from PubMed citations to their library’s online full-text subscriptions and local print holdings records or to an OpenURL-based service (link resolver) implemented by the institution. When a user finds a citation in PubMed, he can click on his library's icon and see either the full text of the article or a listing of his library's print holdings.
- Every year since 2003 the institute has organized a workshop named “Dr. S.R Naik Workshop on biomedical literature search” in order to train users in effective biomedical literature search techniques and the usage and awareness of various other databases like Cochrane, Web of Sciences, Ovid, and Scopus. In addition the usage of reference manager software such as Endnote has been taught through using a national or international expert. The librarian also ensures their own participation as a team tutor.
- The inter-library loan services offered by the library on request to ensure rapid and timely access to full text material not available locally.

Findings

- Health professionals were now more aware of recent research and developments in their area, related areas and their areas of interest.
- Training sessions proved to be quite interactive and informative. The clinicians agreed that they were more confident and competent in performing systematic literature searches for the best evidence, thus enhancing critical appraisal skills.
- Studies also showed that requisition sent to the librarians for effective literature searches has reduced as there was a gradual increase in the willingness of medical professionals to search for information on their own to support clinical decisions (thus decreasing risks to patient care through unsafe decision).
- Only those searches are forwarded to the Medical librarians that are urgent, important or rare and which required expertise and skills in order to save time and cost to the clinicians.
- Requests for electronic article delivery service for the resources which the library subscribes to have gradually reduced as the clinicians and other health care professionals become aware of the electronic and open access resources available to them in the campus wide network.
• The requisition of full text electronic article delivery services via inter library loan was confined to those articles which the library had no subscription to either online or in print.
• The librarian enjoyed being part of the health service and has better job satisfaction knowing that the timely and needy support provided can contribute in some way to improving patient care and service delivery.
• Increase in the usage statistics of the subscribed electronic resources (fig. 2) in the library showed that the clinicians are spending more time in accessing the electronic resources at their desktops rather than visiting the library physically for book stock and printed journals thus raising the concept of virtual library or ‘library without walls’.
• User’s attitude towards the librarian’s service rose supporting the need for clinical librarian services at the institutes Library.
• Services should be targeted at areas like journal club support for the residents; library services to remote areas or beyond geographical barriers i.e. Tele-Consultation and Distance education, orientation programs etc.
• Feedback via interviews with the residents, research scientists and project fellows in various fields of medicine brought about innovations in teaching methods, timeliness in research and value in patient care.
• Strengthening the relationship between the librarians and the clinicians by immediately answering queries through in-person support and online reference services like email via the internet as well as intranet, chat services and telephone thus resulting in time saving and benefiting team learning.

![Chart](image)

Fig. 2. Rise in usage of e resources after the Training program in the May month and adding to link out services in the end of Aug end.

Conclusion:

EBM in India is catching on slowly. Due to the economical problems of the developing countries, budgets of the libraries are quite insufficient. Libraries have to fight with the reductions made by the local governments in their budgets. The level of job satisfaction in developing countries is lower
than that of developed countries. The main reasons for this are a lack of need for information and not giving essential value to the librarians and information experts. There are no standards in libraries regarding the personnel to be employed. In India there are no standards for Hospital or Academic Libraries, regarding clinical librarians. It is a neglected profession. Clinical Librarians may be, rather are, working invisibly as librarians. Budget crunches are always a concern for subscribing to e-resources and for a good ICT infrastructure. In India on the other hand the librarians lack training and in-depth clinical and subject knowledge. Therefore critical appraisal of papers by librarian and the physicians alone can be problematic. Partnership working is required between clinical staff and librarians. There is an urgent need to restructure and redesign the course curriculum in Library and Information science and include Medical librarianship as an elective in the Master’s degree course as well as a need to train the existing librarians in the health science libraries. In addition the health professional needs training about the latest information communication technologies and utilization of Web 2.0 tools. There is a strong need to train medical librarians and the health professionals in literature searching along with skills in critical appraisal. An initiative to train medical librarians as well as medical professionals to make them net savvy has been already taken by the ICMR-NIC Centre for Bioinformatics. Infrastructure for the inter library loan service and subscriptions to e-resources need strengthening. Recently the National Medical Library’s Electronic Resources in Medicine Consortium is an initiative taken by DGHIS & MOHFW to develop nation wide electronic information resources in the field of medicine for delivering effective health care. Creation of highly skilled Medical librarians with good subject knowledge would certainly reduce the burden of finding the best medical information, for the medical fraternity and this would definitely enhance patient care, education and research in medicine and save the precious time of the physicians in India. Salaries need to be attractive to attract the right people. There are challenges for the transition, and these need to be tackled effectively in future.

References


