CLINICAL LIBRARIANSHIP

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Abstrak: *Artikel ini membincangkan tentang peranan pustakawan klinikal dan bagaimana konsep ini dipraktikkan di beberapa buah perpustakaan di Amerika Syarikat dan Kanada. Ia menyentuh tentang teknik-teknik yang digunakan dalam penyebaran maklumat seperti LATCH, Current References, Latest Topics and Patient Care Related Readings. Kebaikan dari perkhidmatan ini turut dibincangkan dan beberapa panduan diberikan bagi mempastikan kejayaan program ini.*

Abstract: *The role of the clinical librarians and how it is being practised at several libraries in the United States and Canada are discussed in this paper. This includes the techniques of information and dissemination: LATCH, Current References, Latest Topics and Patient Care Related Reading. The benefits of the service are discussed and guidelines on how to implement the project successfully are given.*

[***Judul dalam bahasa Melayu*** *: Kepustakawanan Klinikal*]

Introduction

Clinicians require access to current diagnostic and therapeutic information that is both relevant and patient specific. Efficient methods of obtaining reliable information from the literature are particularly important in acute care settings where critical decisions must be made quickly. The new and highly complex information technology requires that the clinicians learn new information retrieval skills or receive assistance from an individual having these skills. The concept of the clinical medical librarian (CML) originated out of a perceived need to increase the health sciences library's ability to respond to these clinical information needs and bridge the gap between the medical literature and the practitioner.

The CML is defined as a health sciences librarian who participates in clinical rounds.[1] The concept of a CML was developed over 20 years ago. In the 1970's, CMLs were first defined as medical literature specialists who accompanied physicians and medical students on rounds, then returned to the library to search for pertinent care-related articles and deliver them within a very short time (ranging from minutes to hours). The programme enhances patient care by providing current literature quickly. It also enhances the educational process for all team members by keeping them aware of new techniques and therapies. CMLs spend some time instructing team members in the use of library tools and facilities.

There are alternatives to rounds for the CML programme. Staudt, Halbrook, and Brodman[2] report that in their programme, the clinical librarians did not go on rounds with the physician and his team, but instead sat in on residents' reports from which the librarians gleaned the problems for which a search of the literature might be appropriate. Also, Schnall and Wilson [3] note that as long as the CML is present at departmental discussions, held for reviewing management of current cases, it is possible to have an effective service without the librarian going on rounds.

First reported by Algermissen,[4] CML services differ from traditional library-based reference work in two significant ways. First, the CML "takes the library" to health professionals and students by attendance at the activities of a clinical department (for example, morning report, attending rounds, and conferences).

Second, the presence of the CML at clinical activities allows the librarian to anticipate questions and often results in the provision of the information even before it has been requested.[5] In common with other library outreach programmes, clinical librarianship fosters exchange between the library and its users. Primarily the librarian disseminates information. At the same time, however, he or she learns more about user information needs and trends in various health specialties or in specific units of the organization. This has many spin-offs, such as providing a better base for planning library services, increasing the involvement of library staff in the activities of the hospital, and demonstrating the relevance of the library's resources and staff to direct patient care. More recently, there has been an emphasis on the instructional and consultative aspects of the CML's role. This is due to the increase in searching by the health professional, as the end-user, to gain access to the literature.[6]

Background

After collecting basic clinical and laboratory information for their patients, physicians face the complex task of medical management - sorting the data, planning further diagnostic work, formulating problems and diagnoses, predicting course and outcome, and planning and monitoring the response to therapy. Physicians rarely seek out specific, case-related information from the medical literature, even though such information might be expected to improve the quality of care, as much as information derived from laboratory testing.[7]

One impediment to such case-related use of the literature is limited access since proper searches take time and skills usually not available to physicians. Clinical faculty tend to be less knowledgeable about the literature outside their specific fields and tend to overlook that literature in searching for information related to a patient problem. For example, Farmer and Guillaumin [8] report that a head and neck surgeon expressed a degree of surprise when a CML brought some relevant literature from ophthalmology in response to a request.

Such searches if done by physicians would also be disruptive to care duties and incur unacceptable costs in terms of physician manpower. Moreover, for input from the medical literature to serve a useful purpose in ongoing case management, the characteristics of access must be modified from those of traditional retrospective searches. The questions asked and searches made must be highly refined. Searches must be sharply focused and conducted with extra promptness, speed, and efficiency for the information to reach the clinician.

The CML, as an extension of reference services, has been in existence primarily in the United States. The CML programme's original concept grew from a need observed by Dr. Getrude Lamb when attending rounds at the University of Missouri-Kansas City (UMKC) School of Medicine to observe teaching patterns. Due to the questoins that arose during these rounds and in view of the librarian's speciality in accessing the current literature, it was decided to add a librarian to the health care team.

The first CML project began in 1971 at UMKC under Lamb's direction. This was partially supported by a Public Health Service grant from the National Library of Medicine which covered the time period of May 1, 1972 - April 30,1975.[9] In 1973, Lamb moved to Hartford Hospital (Connecticut) where she also developed a CML programme, in cooperation with the director of the University of Connecticut Health Center and the help of a two year medical library resource project grant from the U.S Public Health Service. These two projects are the seminal work in clinical librarianship.

Other CML programmes appeared in various health care settings after Lamb spoke about the innovative UMKC programme at the 1972 annual Medical Library Association (MLA) meeting in San Diego. In the 20-year history of the CML programme, at least 30 libraries associated with universities or hospitals have published descriptions of their programmes. Programmes exist in cancer chemotherapy, family health, gynecology, fetal/maternal medicine, pediatrics, psychiatry, pulmonary medicine, obstetrics, and general inpatient information.

Although the activities and target population of many CML programmes differ, the major goal is basically the same: to place an information intermediary within the primary patient care setting where information is needed. More specific goals achieved by various CML programmes are: (1) to save the time of health care professionals by providing skilled personnel to perform literature searches, (2) to make health care professionals more efficient and independent future users of the library by providing on-the-spot awareness of library resources, (3) to assist in building a reading file to be used as a permanent resource, and (4) to provide the CML with a more thorough understanding of patient care problems which will enhance retrieval of the most relevant literature and influence future library acquisition and services.[10]

Format of CML Programme

There are several CML programmes in operation today. It is safe to say that all programmes have made some modifications of the original concept. The exact format of a CML programme varies with the institution. Different institutions have developed CML programmes with different goals in mind.

In Canada, the CML programme at the McMaster University Medical Center differs from other programmes in the United States in two major ways. Firstly, the programme is time-limited and education oriented. Rather than having clinical librarians permanently assigned on a full-time basis to one patient care setting as is frequently the case elsewhere, the programme allows for a half-time librarian to rotate through different settings, each for a limited time period. Emphasis is placed on teaching health professionals information-seeking skills for ongoing use. Secondly, the service is available to patients, families and to health professionals. This recognition of the patient's need for information is in response to the general movement towards greater consumer participation in health care and acknowledges the right of individuals to make informed decisions about their own care and treatment. The clinical librarian plays a special role in identifying patients' questions, locating materials, and making health professionals more aware of patient and family information needs.[11]

An awareness of the options that are available will allow the librarian to select the programme which is best suited for the institution. Increased information literacy should be a major goal of any CML programme so that the user can function independently in the future.

CMLs do face problems. Mosby and Naisawald[12] recommend two ways to overcome these problems. The first is to visit all the members of the health care team before initiating the service, and thoroughly explain the aims of the service and encourage use of the service. The second is to have a well planned, enthusiastically accepted programme.

Areas that may present difficulties in implementing the CML programme are as follows:

a) Question negotiation

It may be difficult at times to get a chance to clarify requests because a CML is providing reference service "on the run". A CML new to the service is going to need time and help to become familiar with the terminology. Since the CML is probably going to choose articles, she will need more information that might be volunteered at the usual reference interview.

b) Document delivery

The question of cost arises here. There may be a problem in deciding who pays for the photocopies, the user or the library, or perhaps the department.

c) Acceptance of the programme (and the CML)

There is constant tension between the need to prove the efficiency of the service, and the personal need of the CML to feel a sense of rapport with the team on the one hand, and the need to avoid becoming a "gofer" or fostering unhealthy

dependence on the other. Any CML has to have a correct blend of assertiveness, flexibility, self-esteem and good communication skills.

d) Action and reaction

There may be a tendency to provide too much material especially in the beginning, to avoid missing anything. [13 14]

The constant exposure to illness and death may be difficult for the CML to cope with.[15]

Some members of the health care team may object to the CML's presence in the patient's room.

A rotating house staff and student user group may make it difficult for the CML to establish rapport.

There may be objection to offering this service to one department and not to others.

The maintenance of a file system of subjects searched, strategies used, and/or useful articles may be burdensome. [16]

Some of these may be transitory problem areas that disappear as the CML gains experience. For example, daily contact with illness and death needs an adjustment to these realities; the librarian's close involvement with the health care team usually increases sensitivities in these areas and the health professionals' activities.

e. Ethical and legal considerations

A Patient's Bill of Rights, approved by the House of Delegates of the American Hospital Association on February 6, 1973 has three sections which impinge directly on clinical librarianship.[17] Section #2 and #3 of the bill would promote a climate favourable to CML programmes. Section #4 however might be interpreted as eliminating the possibility of having a librarian attend bedside rounds. It all depends on whether the librarian is perceived as a member of the health care team, and "directly involved in the patient care". Legal problems may also arise if information provided by the CML is attached to or included in the patient's record. If a physician does not incorporate the information into the therapeutic regime, for whatever reason, it may ultimately be interpreted as malpractice.

Mechanisms of Information Dissemination in CML Programme

There are four mechanisms used in the dissemination of information in the CML programme. The first mechanism is the Literature ATtached to the CHart or popularly known as LATCH. It is a problem-oriented system. It depends on the presence of the CML at house staff rounds each morning. The CML searches for and analyzes documents for inclusion in a folder giving medical information pertinent to the patient. It consists of a collection of a few good current articles on some aspect of the patient's illness. This collection is attached to the chart of the patient at the request of any of the health care personnel attending him. Bibliographies citing references to additional information are included for members of the team who may wish to study the disease or technique in greater depth.

An online LATCH programme was initiated by the Health Sciences Library at Lehigh Valley Hospital Center in September 1982. LATCH was placed on the hospital's computerized information system. The unit clerk will key in patient information on the terminal after a staff member places a LATCH request on the patient's chart, and the request is transmitted to the library with all the necessary information. The request is picked up by the library staff who forward the literature directly to the unit to be attached to the patient's record. Computerized LATCH has expanded the service concept of the library by establishing a formal process by which librarians can communicate online with other departments. It demonstrates a shift in the identification of the library from an isolated unit to an interactive resource centre.[18]

The second mechanism is a weekly selection of abstracts entitled *Current References* designed for medical students and faculty at UMKC. It is one of the most popular of the information disseminating techniques developed by the CMLs. The service now includes key articles and editorials selected by each of the CMLs on the basis of their pertinence to actual patient care problems. As articles are selected and abstracted by the CMLs, index terms and codes from the National Library of Medicine's Medical Subject Headings vocabulary are assigned for quick and consistent subject retrieval. Each citation and abstract are then printed on a three-by-five inch card. Eight to ten of these cards make up one issue of Current References. This format has the advantage of allowing each user to retain selectively and file for future reference those abstracted articles found most useful.[19]

Latest Topics, the third mechanism, consists of a master file essentially generated from demand search-document delivery. The file includes documents retrieved which do not necessarily represent a current patient problem. It anticipates users' needs and can effectively produce information for a current or repeated request.[20]

The last mechanism is the Patient Care Related Reading. It is a hospital-based programme of continuing medical education in which the librarian actively participates in the preselection, packaging, and routine delivery of literature for use by physicians caring for patients with certain clinical disorders. Librarians compile bibliographies, review articles, and prepare preliminary packets. Physicians review these packets and make suggestions for each article. Librarians then prepare final packets following reviewers' recommendations and distribute them as a routine procedure to all physicians caring for patients with a diagnosis corresponding to the prepared topics. Packets are used by physicians to add to their knowledge, and for review and teaching purposes.[21]

In most cases, MEDLINE searches answered patient-care questions quickly and efficiently. Other searching resources included *Excerpta Medica, Science Citation Index*, and textbooks. Interlibrary loans were reported as another resource used to fulfill CML information needs.

CML Programme Evaluation

A CML program should be evaluated. Firstly, it is important to determine the quality of the service provided. Is the information retrieved by the clinical librarian relevant and of good quality? Secondly, the clinical librarian needs to know if the procedures of providing information are satisfactory. Are the requesters receiving the needed information in a timely manner? Is the information readily accessible to everyone who needs it? Thirdly, it is necessary to keep track of the costs and time involved in order to ensure adequate staffing. How much time does the clinical librarian spend in retrieving the needed information? What are the computerized literature search costs, photocopy and material costs? And finally, the clinical librarian needs to have feedback from the physicians, residents and students who use the service. How do they rate the quality of the service and the librarian's ability to locate relevant information.[22]

The reports that discuss the merits of CML programmes have stressed the time effectiveness of having a CML provide access to case-related literature, thus freeing the busy clinician to devote more attention to patient care. Furthermore, these articles have emphasized the cost-effectiveness of such a programme when compared with other educational expenditures and with standard laboratory or radiologic tests as a means of furthering knowledge about an individual patient.[23]

The CML programme allows a thorough-evaluation of the medical literature and its provision in a time-efficient manner. This programme also improves contact between house officers and the library staff and leads to increased use of literature search and other library resources.

Objections to CML programmes do appear in evaluations. A CML on rounds added to an already overcrowded situation. The patient might feel the discomfort of having so many

people in his room. The librarian might also be uncomfortable during the physical examination of a patient. Sometimes the CML misunderstands questions during rounds and provides irrelevant or unsolicited information. The use of the CML as a primary source of information is questioned, as well as the CML's knowledge of medical terminology. Information service for the department involved, undeniably becomes associated with one individual "specialist" (the clinical librarian). Therefore, some users identified the CML as an individual rather than part of the library team.

There is also the impact of the CML's activity on the medical library itself. At the Southern-Illinois University School of Medicine Library, a modified CML programme was offered for five years (1976-1980). Nineteen percent of all librarians' time was spent on the CML programme. General reference service to the entire medical school was suffering because reference desk coverage availability was reduced up to 38 percent when the librarians were out of the library.

Some claimed that the CML's service is too labour intensive due to the fragile chain of events that must work in order to translate the original request into working knowledge for the health care provider. Most often the information must be immediately obvious in the article or book, it must deal with very similar circumstances/patients as the requester sees. Furthermore, realizing that an answer is of no use sitting in an office or pick-up file, the clinical librarian may be delivering articles to the ward, intensive care unit or physician's office.

Characteristics of a Good Clinical Librarian

A CML must have a good undergraduate record with a successful completion of graduate work in medical librarianship. The CML needs to be well-versed in medical terminology to thoroughly understand specific conservations on rounds or at conferences plus the added talent of being able to shed his/her timidity and corner a medical student or resident and ask him/her to explain what he/she is talking about. He/she should have some reference experience including online training and familiarity with health science environments. The "right" personality traits should include: willingness to learn; enthusiasm; service orientation; self-confidence; the ability to make connections, be assertive, and to identify and take advantage of opportunities.

Clinical librarians spend much of their time in a non-library environment with people who may be unaware of what librarians can do. Initially, a clinical librarian will need both to sell the service and define its scope which requires public relations sense, diplomacy, and solid reference ability and credibility. Physical stamina (CMLs spend a good deal of time standing and often put in long hours), and a healthy attitude about being in patient care environments are all fundamental to the job.

Clinical librarians must learn quickly, feel secure in a nontraditional role for a librarian; and above all, have a commitment to support others as they take care of patients.

Conclusion

As CMLs continue to function as part of the health care team, the skills and techniques needed in order to respond successfully to information needs are becoming increasingly sophisticated. Rapid changes in technology and budget constraints are forces which require more and better administrative skills. The CML must deal with people, both library staff and other institutional members. They need good interpersonal skills. Today's CML must be adaptable, ready and willing to accept innovations and to implement them. With the great expansion of personnel and educational facilities in the health care field, CMLs can enjoy being vital, contributing members of the health care team, as well as cooperating and sharing resources with other health care teams through the biomedical communication network.[24]

There are several factors that can ensure the success of the CML programme.

1. The existence of health professionals who have information needs, who wish to have

these needs met, and who are willing to accept the service of the clinical librarian.

2. An effective and cooperative health care team, whose members work comfortably together.

3. A positive attitude on the part of the members of the health care team towards the provision of information to those receiving the services of the clinical librarian.

4. Acceptance of the clinical librarian as a member of the health care team.

5. Effective communication between the clinical librarian and the health care team.

6. Strong support by at least one senior individual in the clinical setting who understands the role of the librarian and who initially legitimated this role in the eyes of the other health professionals.

7. Emphasis on the positive and non-threatening nature of the librarian's participation in the clinical setting, that is, that the librarian is not trying to take over the role of other health professionals in patient education (in cases where patients also receive the services of the clinical librarian), nor to point out their weaknesses with regards to providing information.

8. Willingness on the part of the librarian to undertake a new role in a new setting and to work cooperatively as a team member.

9. Support of the library staff.

10. Adequate support and funding. [25]

The programme effects a speedier transfer of information to the patient care team, increases the CML's awareness of the team's information and time frame needs and demonstrates the library's role in patient care activities. Other benefits include creating a new awareness of library services, teaching residents how to utilize the information tools and alerting faculty to areas requiring further research. All of the above, reinforces the changing image of librarianship and the growing appreciation of the role of the librarian within a patient care setting.

Despite the advantages, several considerations should be viewed in the light of the evolvement of the librarian's role and new technology. Although clinical librarianship emphasizes the team approach, care should be taken to preserve the librarian's essential functions. Unless the bounds of service are carefully defined ahead of time between the library's planning team and the clinical department's representative, the clinical librarian programme runs the risk of being reduced to a fetch-and-carry service and the librarian becomes a variation of the physician's handmaiden.[26]

This labour-intensive and consequently expensive service needs careful evaluation. The few reports of discontinued programmes indicate that the lack of budgetary support for the clinical librarian is the major reason for a programme's demise. Since libraries are providing the service, it is their responsibility to state the salient points of the CML to the various clinical department heads who might benefit from these services. An open communication between these two groups and the consideration of a shared funding agreement could equalize budgeting to make the CML programme a viable commodity in the health care setting. Clinical departments that desire CML services need to have cost factors explained.

Librarians must market the library and its visible accomplishments. Libraries need to aggressively negotiate funding with hospital administrators for library services and attend decision-making meetings. An effective CML on rounds, at conferences, on hospital floors and in the library can truly be referred to as the information specialist - trained to address the information needs of other health care professionals. If libraries can deliver what they promise, the library's worth to medical centres will be realized, and budget approval for programme may consistently be a positive consideration. [27]

The increase in end-user searching currently seen in libraries has significant implications for

CML programmes. There is controversy regarding what the effect will be. On the one hand, there is the opinion that as their online search skills develop, the clinician will no longer need the CML and the concept will become unnecessary. The opposing view is that there exists an opportunity for the CML to emphasize education and consultation with respect to searching skills in addition to more traditional information provision services. Rather than threatening the existence of CML programmes, teaching computerized searching and bibliographic skills can make it possible for librarians to expand existing programmes and enhance the role of the CML by adding a variety of educational experiences to CML services and creating a more worthwhile relationship with clinical staff. [28]

Surveys done on CMLs regarding their work show that interaction with people and freedom are the job characteristics of CML that they liked best. There are comments which include that CML is one of the most interesting fields in medical librarianship today and a must experience for all medical librarians. Respondents felt that they learned much about the practice of medicine and have become better able to discuss health care as a peer among profesisonals. [29]

Mosby and Naisawald,[30] in their paper state that an important thing to remember is that CML programmes should not be perceived as a `frill´ to perk up a library's image, but as a vital service which should be incorporated fully into an institution's provision of health care and which should have a positive impact on the quality of that health care.

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