ABSTRACT

In June 1975 a clinical librarian project was initiated in the Gastroenterology Programme of McMaster University Medical Centre (MUMC). The objectives of the project were to assist patients in participating more knowledgeably in their own health care and to assist health professionals in applying the latest information from the biomedical literature to patient care. The implementation and development of the service are described, including the use of feedback from patients and health professionals to assess the impact of the librarians' participation in clinical settings. Benefits included increased accessibility of information resources to patients, a greater awareness of the usefulness of the biomedical literature and the library in patient care by health professionals, and an opportunity for the librarian to gain a first-hand view of activities and information needs in a clinical setting. Key points in determining the successful implementation of the project are given.

(Author)
THE CLINICAL LIBRARIAN AND

THE PATIENT:

REPORT OF A PROJECT AT

McMASTER UNIVERSITY MEDICAL CENTRE

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Abstract

In June 1975, a clinical librarian project was initiated in the Gastroenterology Programme of McMaster University Medical Centre (MUMC). The objectives of the project were to assist patients in participating more knowledgeably in their own health care and to assist health professionals in applying the latest information from the biomedical literature to patient care. The implementation and development of the service are described, including the use of feedback from patients and health professionals to assess the impact of the librarians' participation in clinical settings. Benefits included 1) increased accessibility of information resources to patients, 2) greater awareness of the usefulness of the biomedical literature and the library in patient care by health professionals, and 3) an opportunity for the librarian to gain a first-hand view of activities and information needs in a clinical setting. Key points in determining the successful implementation of the project are given.
Recently health sciences librarians have ventured out of the library and into patient care settings to offer user-oriented information services. Two projects involving full-time clinical librarians are in progress in Kansas City (1) and Hartford (2) and a number of other projects have been reported in which librarians have offered a more limited service as part-time members of health care teams. (3, 4, 5) The clinical librarian project initiated at McMaster University Medical Centre (MUMC) in 1975 differed from then existing projects in that it included the provision of an information service for patients and their families, as well as for health professionals, and it emphasized the use of the service by non-physician members of the team.

General Rationale

Since the inclusion of an information service for patients is the major innovation of this project, it is worthwhile exploring the reasons for its inclusion. In the most general sense, it was recognized that we are in a time of increasing consumer participation in the health care system, and that as a result there is an increasing need for patient education. At least two recent government sponsored reports published in Canada (7, 8) have emphasized the need for greater citizen responsibility for and participation in the system at the levels of government planning and personal health care. Furthermore, the statement of "Consumer Rights in Health Care" issued by the Consumers' Association of Canada cites as its first right, "The right to be informed." (8) On an institutional level, MUMC is a new facility which has a commitment to the development of health
care teams in which the patient is encouraged to participate in decision-making regarding his own health care. Such participation requires that the patient and his family have an information base to use in decision-making, and it was thought that the services that a clinical librarian could provide would help in the information-building process. In the Gastroenterology Programme, patient education is a responsibility shared by all of the health professionals on the team, but it was hoped that the clinical librarian could play a special role in identifying patient's questions, locating appropriate information, and organizing the information into a core of materials for future use.

Another reason for including patient education had been identified by the librarian while providing reference service in the library. The Health Sciences Library is a part of the university library system and, as such, has many users who are not members of the clinical staff. Patients and lay people from the community had been making reference requests in increasing numbers for information about drugs, treatments, and other matters related to their own health or the health of their family members. An example of one such request is as follows:

A patient called the Health Sciences Library at McMaster asking for information on what he referred to as "Cowder's operation". The patient, a worker at a local steel mill, said that he would probably have this operation in three weeks and that.

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The use of the masculine form in this paper is intended to refer to both men and women.
he would like to have as much information as possible about what was involved. He especially wanted some pictures. He was asked for any additional information that he had about the operation. He said that it involved a spinal fusion in the neck, that a piece of bone would be taken from his hip and put in his throat, and that the operation would be performed by a neurosurgeon.

After a search, it was found that the operation was called "Cloward's operation" and was used in the surgical treatment of ruptured cervical disks. Sections in two neurosurgery textbooks were found which described the operation itself as well as various aspects of postoperative care. The original article by Cloward describing his technique in the Journal of Neurosurgery was also located. All of the sources were well illustrated.

The patient was questioned about why he had called the library. He stated that his family physician had not been able to give him much information about the operation, leaving this task to the specialist. The neurosurgeon
The patient also mentioned that the neurosurgeon was very busy and did not have the time to provide him with all the information he wanted. "The patient stated that he was very confident in his physicians, but that he felt he needed "to read something", especially since he was being asked to decide whether or not he wanted the operation. In thanking the librarian for the information, the patient said, "At least now I will know a few questions to ask".

The patient took the materials back to his physician for discussion. Following the operation, both physician and patient reported that the information had been helpful in ensuring that the patient was fully informed about what would happen to him.

Despite the beneficial effects of this particular encounter, requests for medical information by patients present serious problems for the librarian who is not in direct contact with the health professionals involved in the patient's care. The librarian faced with such a request has very little data about the patient who is requesting information. Factors such as the patient's correct diagnosis and treatment, his state of mind, and the appropriateness
or inappropriateness of different formats or amounts of information are all unknowns. Furthermore, the librarian is usually not aware of a suitable health professional to whom the patient should be referred for interpretation. More often than not, librarians quite rightly refer patients and families directly back to their physicians for information, rather than risk providing something that is inappropriate or misleading. This is unfortunate, however, because there is often useful information that could be provided by the librarian if he had enough data to assess the patient's situation and knowledge of health professionals with whom to liaise. It is evident that the clinical librarian working as part of a health care team is not faced with these same problems; he is familiar with the patient's case and knows health professionals involved in his care. By virtue of his activity in the patient care setting, the clinical librarian can ensure that the information supplied supports and complements the care provided by the team.

In providing the information service to the health care team, an emphasis was placed on the use of the clinical librarian's services by non-physician members of the team. This was felt to be important for several reasons. First there was a commitment at MUMC to the team concept, implying that all members of the team should have access to the service. Second, it was felt that physicians, because of their past educational training and research interests, would possibly be the most active users of the service and that a special effort might be required to ensure that other health team
members understood and felt entitled to use the service. The potential benefit of the service in terms of learning for non-
physician members of the team was also felt to be as great or
greater than for physicians. Lastly, since most reported clinical
librarian projects had emphasized the use of the service by
physicians and medical students, it was thought that a project
involving a team approach would provide a useful comparison.

Clinical Setting

In order to understand the role of clinical librarian at
MUMC, it is necessary to briefly describe the physical and ad-
ministrative structure of the Health Sciences Centre. The Centre
officially opened in 1972, and is located on the University campus.
The functions of research, education, and patient care are combined
in one building with facilities relating to these functions inter-
spersed throughout the thirty-acre floor space. Undergraduate
programmes in nursing and medicine as well as graduate, post-
graduate, post-professional, and continuing education programmes
in the health sciences make up the education component, while
patient care is provided through McMaster University Medical Centre
(MUMC). MUMC consists of a family practice unit, specialty
ambulatory clinic, and a 420 bed in-patient facility. A matrix
management system is employed in which traditional departmental
structure is accompanied by a programme approach. The concept of
the academic health center and the programme approach is discussed
in detail by Evans(6); however, in brief, a programme allows a
variety of health professionals from different departments and
disciplines such as surgery, medicine, nutrition, social work, radiology, nursing, and psychiatry, among others, to work together in a common area of interest, while maintaining their departmental affiliations. The Gastroenterology Programme, in which the clinical librarian project was initiated, provides patient care through a number of specialty ambulatory clinics and a 35 bed combined medical and surgical ward involving the services of approximately 50 health professionals. The Gastroenterology Programme offered to accept the clinical librarian as a member after a written proposal to establish the role on a part-time basis was approved by the senior executive committee of MUMC. A small budget was approved to cover the cost of photocopying and printing, however the librarian provided the service as an addition to her regular workload in the Health Sciences Library.

Objectives of the Project

In cooperation with Dr. John Hamilton, director of the Gastroenterology Programme, the following objectives were formulated:

General objectives:
- to assist patients in participating more knowledgeably in their own health care
- to assist health team members to apply the latest information from the biomedical literature to patient care

Specific objectives:
- to identify the information needs of patients and health team members in the Gastroenterology Programme
- to provide an information service directly related to patient care with emphasis being given to the provision of this service to
patients and non-physician members of the team
to assist health team members to make more effective use of the
library
- to organize the materials provided into a retrievable information
system for continuing use in the Gastroenterology Programme.

Methods

The clinical librarian visited each non-physician member
of the health team individually prior to starting the project. She
explained the project, the role of the clinical librarian, and the
services that were provided, encouraging the team member to make
use of the services. Although this process was time-consuming, it
was very worthwhile in ensuring the use of the service by non-physician
members of the team. It would seem that individual visits to
total users would be useful in initiation of any clinical librarian
project to introduce the concept and the librarian in the most
effective way.

The clinical librarian began the service by attending one
morning conference round a week on the ward. This conference was
intended to be the one at which the most thorough discussions of
patients were held and where there was an emphasis placed on the
planning of strategies for patient care, problem-solving, and
continuing education of the team members. All cases of the medical
service were discussed and all members of the team were present.
During the course of the conference, patients or family members who
had made a request for information or who might be likely to want
Information were identified and noted by the clinical librarian. Unanswered questions or references to a need for more information on a topic by the health professionals were also noted.

Following the conference round, bedside rounds were made on the ward. Initially the librarian accompanied the team to become familiar with the routine, to listen for any questions from either patients or health professionals, and to be introduced to the patients. This process served to familiarize the clinical librarian with the setting and enabled her to make decisions about the most appropriate use of her time and services. Since the number of team members at the bedside was quite large, it was eventually decided that the librarian would only enter the rooms of patients who had requested information so that she could be introduced in preparation for a follow-up visit. A third phase then evolved in which the clinical librarian omitted the bedside rounds and approached patients independently.

Following the round, the librarian returned to the library and performed literature searches for the health professionals on the topics she had noted. One or two articles on each topic were selected, photocopied, taken back to the conference room on the ward where the round was held and posted on a bulletin board. During the week requests for information from individual health team members were handled similarly, with articles being posted in the conference room. The articles were removed after a week, placed in file folders by MeSH subject headings, and filed on the ward so that they could act as a continuing source of on-site clinical information.
Follow-up visits were also made to patients who had been identified during the morning conference. The clinical librarian explained that she was a librarian from the Health Sciences Library who was working in the Gastroenterology Program to provide an information service for patients and health professionals. She then asked if the patient would like to request any information. Based on the questions asked by the patients, a core of patient information materials was developed including pamphlets, journal articles, and audiovisual materials. In some cases, resources were already available from government agencies, drug companies, or the biomedical literature which provided answers to the patients' questions. In other cases, information materials were created by the clinical librarian in cooperation with members of the team (including patients) and patient organizations, such as the Canadian Foundation for Ileitis and Colitis and the Canadian Celiac Sprue Association. A brochure describing the Gastroenterology Programme, a resource guide of books and pamphlets on celiac disease, and a list of sources for gluten-free products in the local area were among the items produced. Any materials received from outside sources were reviewed by team members to verify that the information they contained was accurate and appropriate before being distributed to patients.

A few days after the clinical librarian had given the patient the information requested, a return visit was made to ask if the information was satisfactory and if the patient had any
more questions. In some cases the librarian would refer the patient to a specific member of the team such as the nutritionist or the physiotherapist for interpretation of the information he had received or, in other cases, the initial information would have served to stimulate new questions. Some of the information materials provided for patients were eventually made into a kind of "sample book" which the patient could look through and use to request specific pamphlets and articles. The principle on which both of these services operated, however, was that each item of information provided had been originally based on a need which a user had identified.

Evaluation

There was no formal evaluation of the clinical librarian project at the time of its implementation, although an informal system of obtaining feedback from health professionals and patients was established. Interviews with key members of the team on a regular basis were used to assess the effectiveness of the service and to implement changes where necessary. The return visits to patients were used to obtain feedback on the usefulness of the service to them and to get comments and suggestions for additional patient information materials. Although this approach to evaluation was not quantifiable, it provided a mechanism for basing the clinical librarian service on user needs and gave a prompt indication of the response of users to the service. Instruments for use in a formal evaluation are currently being developed.
Results

Benefits for Patients

Patients and families appreciated the increased accessibility to information resources that the clinical librarian provided. Since patients were not familiar with the idea of a librarian who could provide them with information while in hospital, some introduction and discussion of the concept was usually necessary. The core of patient information was built up through the contributions made by the patients and their families, and they seemed pleased to think that their needs and suggestions were helping others. No attempt was made to assess the effect of the information service on compliance with therapy, although it is recognized that this is an important area for future study.

Benefits for the Health Care Team

Feedback from health professionals also indicated a positive response to the librarians' activities. Health professionals viewed the benefits of the service as affecting patient care in two ways: first by providing patients with information that they could read, show to their families, and take home with them; and, second, by keeping the health professionals themselves more up-to-date with literature that was relevant to their patient care activities. Most of the health professionals felt that they used the library more with the clinical librarian as a "contact person." In fact, during the project, a number of the team members admitted that they actually came to the library for the first time. When asked if the service had made them "dependent" on the clinical librarian, health
team members replied that they thought it had increased their independence by enabling them to learn to use the library more effectively. This occurred because the service of the clinical librarian in providing articles was strictly limited to patient care related activities on the ward. When help for another purpose was needed, for instance to make a presentation at rounds or to do a literature search for a research project, the librarian explained to the team member how to go about doing the search and advised on which sources to use. The difference was that the health professional now knew whom to ask for advice, what kind of questions to take to the library. He also appeared to recognize the usefulness of the biomedical literature and the library in patient care to a greater extent.

Benefits for the Librarian

Another benefit of the project was that it provided an opportunity for the librarian to gain a first-hand view of activities and information needs in a clinical setting. This had many spin-offs such as providing a better base for planning library services, increasing the feeling of involvement of library staff in the activities of the hospital, and demonstrating the relevance of the library resources and staff to direct patient care. The experience gained by the librarian in this project also acted as a basis for her acceptance into an interdisciplinary graduate programme for experienced health professionals wishing advanced preparation as clinicians. As a student, the clinical librarian was able to further develop her new role, gain specific clinical skills in interviewing and needs assessment, and do some preliminary work towards future evaluation of the
role. The next step in this process is a rigorous evaluation of the clinical librarian role which would involve more than one librarian working in a variety of clinical settings and a formal evaluation component. At the present time a grant proposal is being prepared to provide such an evaluation.

Discussion

Despite the overall positive response given to the services of a clinical librarian in MUMC there are still some areas of concern which require further thought; for instance, the ethical issue of whether or not it is fair to the patient to add still another professional to the health care team. The dilemma encountered by the clinical librarian in this project in making a decision about attending bedside rounds directly illustrates some of the specific problems involved.

Among the advantages of the clinical librarian attending bedside rounds was that she could be introduced to the patient by the physician, an important part of legitimating the role of the librarian as a member of the team in the eyes of both, the patient and other team members. In addition, the clinical librarian could listen for more cues to the information needs of the team and communicate on a more informal level than was possible in the conference. One-to-one communication about the information problems of individual team members was also possible in this setting.

The advantages of the librarian's presence had, however, to be weighed against such disadvantages as the possible discomfort that might be experienced by patients at having so many people in the room. The librarian was also uncomfortable at being present...
during the physical examination of a patient since this was both a new experience and a part of the round which was least necessary for her to attend. It was found useful in MUMC for the clinical librarian to develop a routine of quietly slipping out of the room during physical examination and then rejoining the team when they approached the next bedside.

Patients who were approached directly by the clinical librarian in MUMC appeared to respond positively to her service. In most cases, the physician had told the patient ahead of time that a librarian would visit him to discuss his information needs. Although more experience is necessary before a statement can be made as to the most appropriate routine for the clinical librarian to use, it may be that approaching patients independently is as effective as having a prior personal introduction once the clinical librarian is an established member of the team.

Another area for further thought involves the organization of the materials provided by the clinical librarian for the health professionals into a retrievable information system for future use. Although journal articles were read and used during the week they were posted in the conference room, they seemed to get "forgotten" once they had been filed away. Since these articles represent useful, up-to-date, and clinically-relevant information, it would seem important to create a system whereby they could be recycled as appropriate. Filing of the articles is also a problem if a subject arrangement is chosen, since each article usually deals with more than one subject. Furthermore, it may be that MeSH headings are not
suitable as a basis of a filing system in this situation, since the clinical librarian is responding to user needs in solving patient management problems, as opposed to providing information on a particular subject. A problem-oriented approach to the arrangement of articles is currently being considered at MUMC, but has yet to be put into practice.

Another area of inquiry involves the extension of the clinical librarian service to out-patient settings. This has been tried at MUMC with some success and will be reported in a future paper.

There are certainly other areas requiring further thought by clinical librarians, particularly if they decide to extend a service to patients; however, the initial response to such a service in MUMC indicates that the role is needed, appreciated, and worth pursuing.

Key Points for Success

The following were considered key factors in determining the successful implementation of the clinical librarian project at MUMC:

1. The existence of patients and health professionals who had information needs, who wished to have these needs met, and who were willing to accept the services of the clinical librarian.
2. An effective and cooperative health care team whose members worked comfortably together.
3. A positive attitude on the part of the members of the health care team towards the provision of information to patients and
their families.
4. Acceptance of the clinical librarian as a member of the health care team.
5. Effective liaison between the clinical librarian and the health care team for the purpose of coordinating patient education efforts.
6. Strong support of at least one senior individual in the clinical setting who understood the role of the librarian and who initially legitimated the role in the eyes of the other health professionals, patients and families.
7. An emphasis on the positive and non-threatening nature of the librarian's participation in the clinical setting, i.e. the librarian was not trying to take over the role of other health professionals in patient education, nor to point out the weaknesses of the health professionals with regard to their information-seeking skills.
8. Willingness on the part of the librarian to undertake a new role in a new setting and to work cooperatively as a member of a team.
9. The support of the library staff.
10. Adequate support and funding through the institution or from an external funding source.
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