

Medical School Graduates' Retrospective Evaluation of a Clinical Medical Librarian Program

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ABSTRACT

This paper reports on the results of a survey of sixty-six graduates of the University of Missouri-Kansas City (UMKC) School of Medicine conducted in the spring of 1977. The graduates were questioned about their present library use behavior and their retrospective perceptions of the clinical medical librarian (CML) services which they received as medical students at UMKC. The results show that these young physicians, after regular association with other, more traditional medical library services, hold very positive impressions of the CML program. The graduates also typically credit the CMLs with helping them to learn to use library resources effectively. These retrospective perceptions of the CML match the short-term benefits reported in other studies of similar programs.

PREVIOUS evaluations of clinical medical librarian (CML) programs have been largely based on the testimony of patrons currently using these services. Results of these studies show that patrons perceive immediate benefits in the areas of patient care [1-6] and research [4] and undergraduate [1-5], graduate [1-7], and continuing [8] medical education. To date, retrospective evaluations of CML programs have not been reported in the literature. Such studies, however, can add a measure of credibility to the positive assessments already reported. This paper presents the results of a follow-up study on the perceptions which graduates of the University of Missouri-Kansas City (UMKC) School of Medicine hold concerning the CML program there after having used other medical libraries, primarily as residents.

UMKC CMLs have been heavily involved in the undergraduate medical education of physicians since the first students were admitted to the school in 1971. As members of the multidisciplinary units known at UMKC as docent teams, the CMLs work directly in the educational (and patient care)

settings of the School of Medicine and its principle teaching hospital, Truman Medical Center. Here they observe and participate firsthand in the identification of information needs and also educate faculty and students on effective library use. Within the team context each CML provides regular and continuing service for a defined group of medical students throughout the last four years of the six-year B.A.-M.D. degree curriculum [5, 9].

METHODS

The survey was designed to answer the following questions:

1. How, in retrospect, do graduates now evaluate the CML library services which they received while they were students at UMKC?
2. What is their present library use behavior?

The latter question was included to gather descriptive information, so that the graduates' remarks about the CMLs might be interpreted more meaningfully.

A questionnaire of fourteen items was written to tap these two areas. Care was taken to eliminate systematic bias from the items. The questionnaire was administered to UMKC graduates as part of a more inclusive evaluation of medical school education at UMKC.

The first sixty-six of the school's graduates were invited to participate in this survey. At the time they were first contacted, all sixty-six had completed at least six months of residency training.

The graduates received their questionnaires by mail in April 1977. After three months of determined follow-up contacts, including telephone calls, forty-seven usable questionnaires regarding the library were obtained. This constituted a total response rate of 71%. At the time of the survey, most of the respondents (94%) were in residency

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training. Roughly equal numbers of respondents were in Year 1 (35%), Year 2 (27%), or Year 3 (29%) of their residency program. Just a few (8%) were Year 4 residents. Most typically, the respondents were in residency programs of hospitals which had a major affiliation with a medical school. Most of the respondents (82%) were located at hospitals other than the principle UMKC teaching hospital.

RESULTS

Use of Present Library

Almost all of the graduates responding (98%) indicated that they were practicing or training in hospitals which have a medical library. UMKC alumni records show that most of these libraries are in the medical centers of universities. Thus, a large majority of these graduates have had the services and collection of a substantial medical library since leaving UMKC.

Of those graduates with access to a medical library, most (71%) visit the library in person; some (24%) telephone as often as they visit; and only a few (4%) rely entirely on the telephone. A large majority (78%) said that they used library services at least weekly. Only a few (13%) replied that they used the hospital library less than once a month. These infrequent library users included both graduates in medical practice and those still in residency programs.

When asked which library services they use regularly, most of these graduates (67%) indicated traditional photocopy services. In contrast, only a few graduates (15%–22%) indicated that they regularly used CML services,* current awareness, audiovisual, or interlibrary loan services. In sum, these data on library use indicate that after finishing medical school UMKC graduates have been associated with relatively traditional library services characteristic of university medical centers. This additional exposure to traditional medical library services provided these graduates with a wider context for assessing the CML program and lends interest to the perceptions which they now have of the CML program at UMKC.

Use and Evaluation of UMKC CML Services

Graduates were asked a series of questions which dealt directly with the evaluation of the

*Almost all graduates who indicated that they still regularly use CML services were located at hospitals which are affiliated with UMKC and served by CMLs.

UMKC CMLs and their services. To permit the graduates to respond within their own frames of reference, two open-ended questions were posed. One asked the graduates to list the things they particularly like about the CML services at UMKC. In response the graduates most often commended the CMLs on their availability and helpfulness, noting especially those times when the CMLs had searched the current literature for information relating to patient care problems. Several commented that having CMLs on hospital rounds and as members of the patient care team enhanced their own ability to grasp clinical problems and to find pertinent information. Other positive responses included the time-saving aspects of CML service, the delivery of photocopies of selected articles, MEDLINE searches, the provision of relevant information without a formal request, personalized instruction in the use of library resources, and CML encouragement to read more widely in the literature. Only a few of the graduates (13%) failed to list any CML services which they liked as students at UMKC.

The second open-ended question asked graduates to describe any problems which they might have had with UMKC CML services. The majority of the graduates (77%) stated that they did not have any problems with the CMLs or left the question blank. Some of the graduates (23%) did list problems in response to this question, but only a few of these graduates (11%) listed problems which were germane to the role of the CML. Two of the graduates said that the number of unsolicited photocopies of journal articles which they had received from the CMLs was a problem. One graduate felt that the use of the CML as the primary source of information was questionable; another graduate reported difficulty in communicating with a CML whom the graduate regarded as deficient in medical terminology; and yet another remarked that it was difficult to locate the CML during the day.

Graduates were then asked several structured questions designed to evaluate in a systematic fashion the various services which CMLs had provided these medical students at UMKC: anticipation of information needs by the CML, free MEDLINE searches on immediate patient care problems, the evaluation and delivery of selected articles photocopied from the current journal literature, help in the selection and use of audiovisual materials, individual tutoring in library use skills, and orientation to a UMKC computerized item bank of examination questions. Graduates

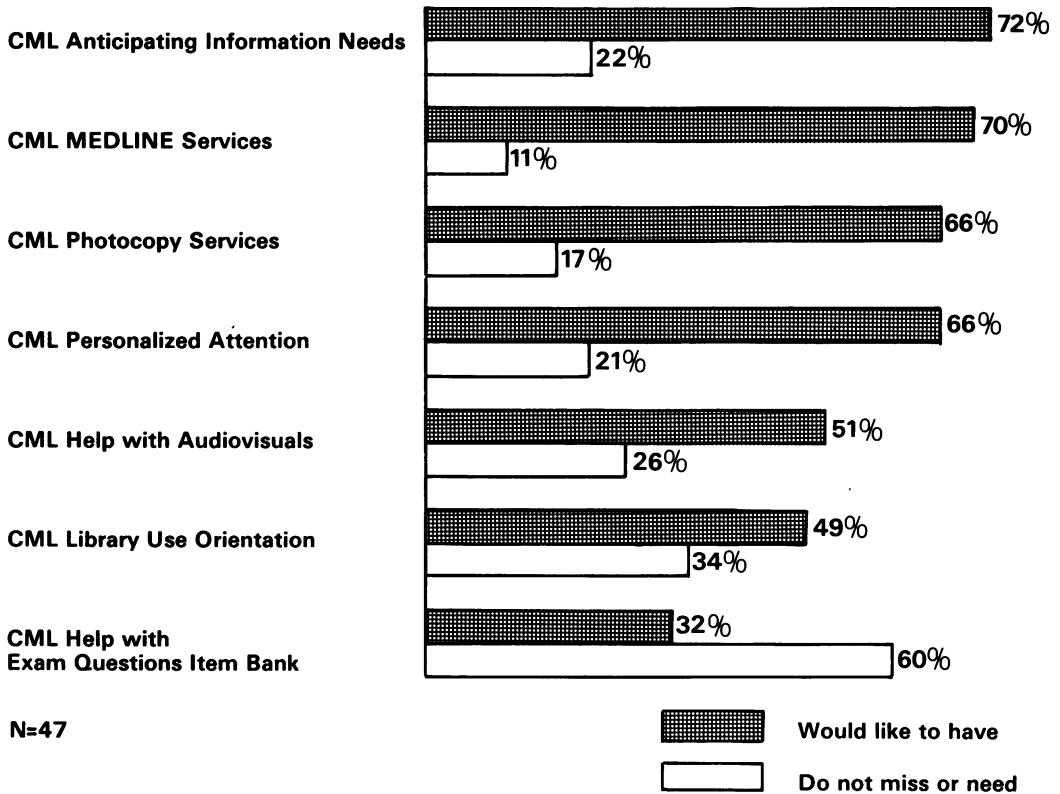


FIG. 1.—UMKC medical school graduates' retrospective evaluations of specific CML services.

rated each of these by indicating whether (a) they would like to have the service still available in their present work or (b) they felt they did not miss or did not need the service now. Asked in this direct way, most graduates (72%) were pleased with the CMLs' anticipation of their information needs and wished this service were available to them currently (Fig. 1). Similarly, most (70%) indicated that they would like to have MEDLINE searches on current patient care problems more readily available; and 66% said that they would like to have CML photocopy services. The only CML service which the graduates generally did not miss was the help CMLs gave in the use of the computerized item bank of examination questions. This data base, accessed with the help of the CMLs, was used primarily to construct quarterly profile examinations required of all medical students by the school's Evaluation Council and Academic Plan [10-11].

The graduates also rated the personalized manner in which the CMLs provided service. Usually the CMLs interacted with the same students over a period of time, not only within the

context of the team, but also on a one-to-one basis. Most of the graduates (66%) said that they would like to have this personalized attention available to them in their present work (Fig. 1).

Next, graduates rated six specialized current awareness services which one or more CMLs offered while the graduates were UMKC students.

TABLE 1
 GRADUATES' RATINGS OF CURRENT AWARENESS SERVICES PROVIDED BY CMLs (N = 47)

	Very Valuable (%)	Of Some Value (%)	Not Known or No Response (%)
<i>Current References</i>	32	60	8
DOCLINE	28	32	40
LATCH	25	30	45
Clinical document citation file	25	28	47
Reference file	19	34	47
<i>Latest Topics</i>	15	23	62

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As Table 1 shows, a large majority of the graduates (81%) regarded as very valuable or of some value *Current References*, a biweekly current awareness service developed by all the CMLs. Each issue contains selected citations from the current journal literature, abstracted and printed on three-by-five-inch cards for future reference by students and faculty [7]. About one-half of the graduates considered the vertical reference files of photocopied journal articles in the hospital wards and DOCLINE, a small, computerized on-line data base of about five thousand journal articles, to be of value [12]. DOCLINE was developed by the CMLs in a fashion similar to that of MEDLINE, but with emphasis on patient care and simple structure for direct use by students and faculty. LATCH (photocopied journal Literature Attached To patient CHarts in the hospital), a service developed on a trial basis by one CML, was also remembered by many graduates (51%) as having some value. In contrast, most graduates (60%) were not even aware of the short-lived current awareness service called *Latest Topics*, developed by one of the CMLs.

The graduates' assessment of the quality of instruction which they received from the CMLs in the use of library resources was gauged in several ways. Graduates, for example, were asked to indicate which of twelve medical library reference tools, resources, and data bases they believed they were capable of using as a result of CML help. As Table 2 shows, the key tools for accessing the medical monograph and journal literature in any

library—namely, *Index Medicus*, the card catalog, and *Medical Subject Headings*—are those which most of the graduates said they felt capable of using.

Some concern has been expressed that CMLs might make their patrons overly dependent on the personalized services they offer [13]. Indeed, one graduate, in describing the aspects of CML service which she appreciated, said: "How easy it was to research the lit[erature]. It really made you lazy." Another remarked that, "as long as such people are available, I'm not interested in being proficient at library work." These appear, however, to be isolated opinions. A large majority of the graduates (83%), when directly asked, said that they were comfortable using a medical library without the help of a librarian. Similarly, a large majority (81%) also said that the CMLs helped them to understand and use the library more effectively on their own. Just a few graduates (9%) checked the response that the CMLs tended to discourage them from using the medical library on their own, and a few (11%) indicated that the CMLs had little or no influence on their use of medical libraries.

Finally the graduates were asked to rate each CML with whom they had worked. In all, six CMLs were named and ranked at least once by thirty-nine of the graduates for eight service qualities: courtesy, helpfulness, enthusiasm, reliability, accuracy, thoroughness, promptness, and availability. Overall the mean rating of 7.7 for all CMLs fell clearly on the positive end of a 9-point scale.

DISCUSSION AND CONCLUSION

Taken together the results just reviewed reveal a very positive assessment of the CML program at UMKC in the opinion of graduates who were requested to evaluate that program retrospectively. Most of the graduates commended the CMLs for their helpfulness in searching the current literature for information relating to patient care problems. They found the principal current awareness service developed by the CMLs at UMKC to be of value. Most of the graduates rated the quality of instruction in library use which they received from the CMLs as high, and they typically credited the CMLs with helping them to learn to use library resources effectively. More specifically, most of the graduates indicated that, as a result of CML instruction, they feel capable of using the key tools for retrieving monographic and journal literature in medicine. Thus, the assertion that CMLs might encourage overdependence among their patrons is

TABLE 2

LIBRARY RESOURCES WHICH GRADUATES FEEL
CAPABLE OF USING AS A RESULT OF CML HELP
(N = 47)

Resources	% Capable of Using as a Result of CML Help
<i>Index Medicus</i>	74
Card catalog	62
<i>Medical Subject Headings</i>	60
Audiovisual equipment	45
Reference collection	43
Computer terminals	40
MEDLINE	38
Audiovisual catalogs	38
Audiovisual programs	32
DOCLINE	19
<i>Science Citation Index</i>	19
<i>Psychological Abstracts</i>	13

not warranted from the point of view of these graduates.

It is particularly important that feedback from graduates on the role of the CML in teaching efficient and effective use of library and literature resources was positive. In the first place, the UMKC graduates typically do not have CMLs to assist them in their graduate training programs or practice settings. Second, medical literature, especially that contained in journals, does constitute a vital source of information regarding recent medical advances for practicing physicians [14].

The generally positive retrospective evaluations of the contributions which UMKC CMLs make to both physician education and patient care match the benefits immediately perceived by patrons at UMKC [5, 9] and elsewhere [1-4, 6-7]. It is of particular interest that the high positive regard which these medical students had for the CML program has continued after they have utilized other libraries. Perhaps it is of greater significance that young physicians who had continuous undergraduate contact with a CML program reported that they were well prepared to utilize more traditional library services after their association with CML services ended. A study utilizing a control group would be the next research step to take to begin to trace objectively the long-term effects of CMLs on the library behavior of medical school graduates who were serviced by CMLs during their undergraduate medical education.

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