

Evaluation of Library Service to Rural Physician Associate Program Students

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ABSTRACT

Medical students participating in the Rural Physician Associate Program in Minnesota enjoy a unique educational experience, but local library resources are not adequate to support the program. To rectify this deficiency a library service program has been initiated, with the computer-based bibliography and photoduplication the principal service elements. Because of positive evaluation by the students, the service will be continued and expanded.

AN increasing number of health science students are receiving part of their education in communities separated geographically from urban colleges or universities. These educational programs have as one goal the expansion of the learning experience through contributing to patient care while learning principles of health care delivery in the rural area. For academic librarians, such programs portend changes in service commitments. To remain passive and indifferent is to handicap students whose learning does not conform to conventional library procedures and institutional forms.

At the University of Minnesota, students in the Rural Physician Associate Program (RPAP) work and study with primary-care physicians in rural Minnesota, but they are separated from familiar urban library procedures, services, and resources. Recognizing that RPAP may well become a model for other university health science programs, the librarians at the Bio-Medical Library of the University of Minnesota devised a method for contributing to the educational process within the constraints of present library staff and budget allocations. In a cooperative effort, the RPAP and the Bio-Medical Library sponsored a library program for medical students studying in rural communities.

THE RURAL PHYSICIAN ASSOCIATE PROGRAM

The Rural Physician Associate Program was begun in 1971 as a step towards relieving the

shortage of physicians in small towns by placing interested medical students under the direct guidance of practicing physicians for a nine- to twelve-month period. During this time students assume responsibility for ongoing patient care and observe the outcome of continuous comprehensive care of patients and their families [1-2]. Afterwards, students return to the university for clinical electives. In a positive evaluation of the students' clinical experience, John Verby, director of RPAP, reported that "only on items related to reading habits did the control groups identify themselves as having equal or greater growth"[3].

THE RPAP AND BIO-MEDICAL LIBRARY SERVICE

Recognizing that students studying in rural communities often do not have access to adequate library resources, the RPAP and the Bio-Medical Library initiated a library program designed to supplement local community libraries. Because additional staff and library financing were not available, a program was planned based on the librarians' ability to command a high level of service from existing resources.

All students in the RPAP have several information resources available: the physician-preceptor who guides and instructs, their own textbooks, and in some instances, local libraries. The bibliography produced by computer, with photoduplication of journal articles, was selected as the most expedient method for providing additional information. Prior to the rural clinical experience, the librarians met with the students to describe the program and to provide printed instructions. The students were asked to telephone or mail their subject requests to the library, indicating whether they needed only the bibliography or if they preferred selection and photoduplication of articles by the librarian. If more information was needed, the student simply returned the bibliography with additional citations selected. Representatives from RPAP agreed to finance the

photocopying and the bibliography search in accordance with regular Bio-Medical Library charges instead of asking individual students to pay.

The goal of the library program is to demonstrate to the student one method of access to the biomedical literature. In addition, three specific objectives were identified: (1) to provide information for patient care, study, research, and decision making; (2) to acquaint students with an information-seeking behavior applicable to rural medical practice; and (3) to emphasize the role of the librarian in the health-care delivery field [4].

EVALUATION OF THE LIBRARY SERVICE

In July 1975 the RPAP library service was evaluated to determine continuation in the fall quarter. During a ten-month period from September 1974 through June 1975, thirty-five of the thirty-eight RPAP students requested library service at least once, with a total of 301 computer-based literature searches processed. In all but ten cases, students asked that the librarian select and mail relevant articles with the bibliography. In addition, seventy-four bibliographies were returned with citations checked for additional articles. A total of 1,415 articles were mailed, resulting in 9,985 pages of photocopy.

The number of requests and unsolicited comments and correspondence from the students indicated that the library service was needed and appreciated. To obtain feedback from other students in the program, a questionnaire was prepared to determine if (1) the material was received in time, (2) the articles selected were relevant to the subject, (3) the computer-produced bibliography was satisfactory, and (4) a local library was available. An open-ended question asked students to suggest other services. The questions were designed to determine how service could be improved, not to assess the impact of the library service on the educational outcome of the RPAP curriculum.

In July 1975 the questionnaire was mailed to all students remaining in the rural communities. Twenty of the twenty-two students returned the forms. All but one student had requested library service; he reported adequate local library services. Seven of the nineteen students used the service two to five times, six requested service from six to ten times, and six, more than ten times. Of the students who received service more than ten times, one student submitted twenty-five requests and another made forty-nine requests.

Responses to the questionnaire reinforced the

positive student comments on article selection by the librarian; however, the questionnaire did elicit a number of suggestions for improvement. Seven students indicated that articles should have a more "clinical" emphasis or that review articles would be more helpful. One student felt material should be more current, although another student commented that the "service was a tremendous help in case presentations and receiving new modalities of patient care." As would be expected, comments on the articles ranged from "OK" and "helpful" to "very good" and "fantastic." In response to the question "Did the material arrive in time to be useful for your immediate purpose?" sixteen students reported "yes" and three answered "sometimes." Although articles and bibliographies were mailed within twenty-four hours, three to four days lapsed between submitting the request and receiving the material.

In addition to providing a service, a goal of the RPAP library program is the introduction of computer-assisted bibliographies to the students. Borman reports that students readily accept online search services [6]. In fact, studies suggest a high acceptance of MEDLINE and other data bases [7-9]. The RPAP students were no exception. Twelve reported good results from the computer-assisted search and seven considered the bibliography satisfactory. When asked if they used the bibliography to obtain additional articles, six answered "no," four checked "always," and seven responded "sometimes." Eighteen of the students' responses indicated a need for continued use of the search method after completion of the RPAP. One student stated that MEDLINE would be more useful if available in the local community.

Local hospital and clinic library development varies throughout the state. When asked to comment on local resources, all twenty students reported availability of hospital or clinic libraries; however, twelve students claimed that their library was inadequate. Thirteen students wrote that neither *Index Medicus* nor *Abridged Index Medicus* was available in the hospital library. Other student comments suggested a paucity of medical information materials. Several felt that films or other audiovisuals should be made available, and a number of students commented on the need for the loan of new texts, especially those recommended by the medical school. One student suggested that a set of textbooks be loaned to the local library during the RPAP year. The positive results of the preceptor-to-student learning experience are well documented [10], but it does appear that some local health science libraries

need further development to provide for students' educational needs.

Evaluation of the RPAP confirmed the supposition that additional information services are needed by students studying in rural communities. The number of requests received and the favorable comments by the students suggest satisfaction with the library program. Response to the questionnaire indicated that material arrived in time to be useful; the computer-based bibliography was satisfactory; and generally the journal articles selected answered the students' information needs.

As a result of the first-year evaluation, the RPAP library service has been continued with several changes. The computer-based bibliography and photocopy service is supplemented, when necessary, by selection of textbook chapters or reviews such as *Current Therapy*. During the first year, the on-line data base was used for the article selection. This policy has been continued, but backfiles are provided if the subject or retrieval suggests they are needed. When appropriate or if requested, books or monographs are loaned directly to the students through the circulation division. RPAP students comply with the regular loan policies, but return of books is facilitated by providing reusable padded mailing envelopes. These changes provide a wider range of material from which to select review articles or clinical information.

THE LIBRARIAN RESPONSE TO RPAP

The Bio-Medical Library serves a diverse user population, but assuring the health science student full service is a major responsibility. Philosophically, the RPAP library service is compatible with the library's mission. It is anticipated that other health science students will participate in similar education programs; therefore, the RPAP has demonstrated both the difficulties and the feasibility of providing library service.

A major concern of the library staff was adding a new service without allocating additional staff time deemed necessary to provide relevant information rapidly. Two search analysts and one assistant assumed responsibility for the RPAP service. For the usual RPAP request requiring both the search and selection of materials, one-half hour professional and one hour paraprofessional time was required. While providing service for the RPAP student, the search analysts continued their reference desk assignments and

regular bibliographic search service. The assistant's time was divided among Midwest Regional Health Science Network responsibilities, circulation duties, and the bibliographic search service.

The need for some reassignment of staff time soon was apparent. By eliminating the circulation duties, the assistant assumed a major role in the activities and organization of the RPAP services. In addition to the photoduplication, billing, mailing, and record keeping, the assistant prepared quarterly statistical reports for the director of RPAP, coordinated activities with interlibrary loan, and handled correspondence and other organizational details. The assistant acquired basic skills for processing a MEDLINE search, including log-on, log-off, and simple commands. Thus the assistant could process one-word searches which, although discouraged for some patrons, are provided to the RPAP students who do not have access to *Index Medicus*. As her library skills improved, the assistant did some initial screening of journal articles and assisted with manual searching. By sharing responsibility and participating actively in all aspects of the service, the assistant established good rapport with many students.

Professional staff time was devoted to clarification of subject requests, conducting the search, and selection of materials. User relations continued to be an important aspect of the service, both with students and with the director of RPAP. The librarians prepared a narrative and statistical report upon completion of the first year of service.

Reorganization of responsibilities resolved staff time difficulties, but others remained. A frequent problem encountered in the RPAP service was the availability of appropriate material—recently published and clinically oriented information. Such current, high-demand material often is in use, at the bindery, on reserve, or noncirculating in the Learning Resource Center. Furthermore, computer-based searches can be judged most satisfactory when formulated for high relevancy rather than comprehensive recall. Although relevant to the subject, citations from the on-line data base do not necessarily lead to appropriate articles, such as reviews.

Certainly such difficulties are not insurmountable; however, they do emphasize the impact of the RPAP program on library services. To serve students studying in rural communities with limited library resources, complete reference services are needed, including not only the com-

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puter-based bibliography and photoduplication of articles but those services accorded all other students.

CONCLUSION

An evaluation of library service to RPAP students indicates the need for supplemental information for students studying in rural communities. The computer-based bibliography and photocopying of journal articles provided an acceptable method. By sharing responsibilities, the library staff demonstrated the necessity of library participation in changing educational directions by assessing student information needs, initiating services, and introducing methods.

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