

# Education for Health Sciences/Biomedical Librarianship: Past, Present, Future

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## ABSTRACT

This paper offers an analysis of and some predictions for the fields of library education and medical librarianship. The recent past of education for medical/health sciences librarianship is outlined, with emphasis on the changing nature of the library school, its faculty, and its students. The present situation is described, with specific reference to faculty, curriculum, and accreditation issues. A future agenda is proposed, identifying the need for interdisciplinary and cooperative efforts within the larger realms of medical informatics, high technology, a variety of health professions, and the community of contemporary library practice.

TO CONSIDER the issue of a specialty in library education is to enter an arena in which debate has been both sharp and extended. Those who practice health sciences librarianship are frequently at odds with the library education community; the typical complaints expressed by practitioners are that they cannot hire a decent entry-level librarian and that they must spend an immoderate amount of time doing on-the-job training. "What are library schools teaching, anyway?" they ask. Library educators respond by pointing to the inescapable costs of specialized courses, to students who are afraid to specialize because of placement concerns, and to the fact that many "medical library" courses are taught by practitioners as adjunct faculty. To prolong this debate further is both unnecessary and unwise. The controversy suggests that these two groups—plus several others—must combine forces to promote professional library and information activities in the rapidly changing health care community. Together, they may survive; but without

such cooperation both may dwindle and die off. In the words of a sixties' activist, "If you're not part of the solution, you're part of the problem."

## HISTORY

### *The Immediate Past*

In the past twenty-five years, library education in general and education for health sciences/biomedical/medical librarianship in particular has seen both good and bad times. In the best of times (when federal funding was widely available) programs such as the Training Program for Medical Librarianship at Case Western Reserve University were founded; library schools expanded their curricula as student bodies increased; new library schools were established; placement was a foregone conclusion for most M.L.S. graduates; and library school faculties prospered, with tenure probable and few problems apparent on the horizon. Students came to master's programs in library science from traditional backgrounds in the humanities and social sciences, with traditional ideas about service and social good. Accreditation was the sole property of the American Library Association (ALA), and medical librarians were certified upon receipt of the M.L.S., so long as they had taken a single course in medical literature or librarianship.

With the seventies, however, slow and subtle changes occurred in professional education. The affirmative action efforts of the sixties, coupled with an increasing number of women seeking higher education, led to a welcome and celebrated change in professional schools. Women who had previously sought careers in librarianship, educa-

tion, social work, nursing, and the other feminized professions began to claim their places in business, law, and medical schools. These schools, apparently unwilling to displace a few good men, admitted more women and enlarged their classes. This siphoning-off of talented women who might otherwise have entered the feminized professions affected those professions in both quantity and quality: it led to a diminution in the size of the applicant pools and to a loss of talent. The fact that medical schools today report that a third of their enrollment is female (with law schools standing at 40%) is good news indeed for the champions of equal access. The news, however, is both tragic and frustrating for those in library education.

Another change was the steady decline in federal funds for library education. Because of external fiscal concerns and increasingly conservative administrations, dollar support for many library activities dried up. The innovative program at Case Western Reserve University ceased, and a number of library schools dropped specialty courses when they could no longer fund students or adjunct faculty with specializations.

#### *Recent Changes*

Changes in accreditation and certification also took their toll on library education. The 1972 Standards for Accreditation adopted by ALA called for first professional degree programs that would "provide for the study of principles and procedures common to all types of libraries and library services." Implicit in these standards was the idea that specializations were to be studied, if at all, only after the broad general base had been established. The Medical Library Association (MLA), on the other hand, changed its certification practices by moving towards a "medical model," requiring a period of practice analogous to an M.D.'s internship and a standard examination analogous to the National Boards. Fewer and fewer new graduates were willing to put themselves through this experience; few felt adequately prepared to do so.

Many traditional library schools, faced with vast technological changes, found themselves concentrating on the addition of "information science" to their curriculum, if not also to their name. For some, this became a new and impressive specialization, with both resources and faculty appointments focused on strong programs and tracks in technology. For many other schools, however, information science was synonymous only with online searching, OCLC, and microcomputer use. Their curric-

ula and activities were still centered on traditional library services. Only a few technologically based advances were added to these schools' offerings.

In twenty-five years, library education had come from flush times and the ability to offer specialized training to harder times, with much less money, fewer students, a mandate for the preparation of generalists, and almost static faculties.

#### *At Present*

It is easy to describe the scenario in a typical library school today. The evidence has been gathered; the MLA itself publishes a guide to *Courses in Health Sciences Librarianship Offered by ALA-Accredited Library School Programs*. Forty-one schools in the United States offer one or more courses on some aspect of medical/biomedical/health sciences/life sciences librarianship. The most common approach is to offer a course in the literature or bibliography or resources of the field, backed up with an elective internship/practicum/field work experience. If a second course is offered, it is often either a management course or a course specifically concerned with database searching in the health sciences. Independent or directed study options are sometimes available, and a few schools and programs point with pride to coursework that focuses on the consumer's health information needs and resources.

Forty-one schools seems an impressive number; there are only fifty-four accredited programs that admit new students in the United States. A more telling number can be gleaned from a review of the current directory of the Association for Library and Information Science Education, which lists only ten individuals on the full-time faculties of these programs with an identified specialty in medical or health sciences librarianship or resources.\* Simple deduction suggests that thirty or more accredited programs must rely on part-time faculty for their courses in medical and health sciences librarianship. This may give those courses a "real world" perspective, as most adjunct faculty are medical librarians with much practical experience, but it probably also means that in many of these thirty schools no one on the regular faculty or in the administration is a consistent advocate for medical librarianship in faculty discussions, curriculum decisions, or long-range planning.

\*These ten are well-known names in MLA, as most are active participants in association activities: Pauline Vailancourt, Alan Rees, Gwendolyn Cruzat, Robert Berk, Fred Roper, Ellen Detlefsen, Bella Weinberg, Martha Jane Zachert, Ana Cleveland, and Miriam Larson.

The absence of advocacy is a serious problem. Advising of students may suffer if no full-time faculty member is present to suggest appropriate electives (courses in sci-tech resources or government publications, systems analysis, special libraries management, or microcomputer use) or to arrange and supervise internships or field placements in local libraries. The expansion of course offerings or the creation of a specialization are virtually impossible without a faculty advocate. The advocacy of the ten identified full-time faculty will be diluted as well, as these teachers—some of whom are senior members of their faculties—approach their own well-deserved retirements. Few if any of the younger library educators and doctoral students who will become educators have experience or even a strong interest in medical or health sciences librarianship.\*

#### CONTINUING EDUCATION CONCERNS

Another important arena in which library education has abdicated its responsibility is continuing education. This may be traced at least indirectly to the success of the MLA in organizing and marketing its own continuing education courses and the apparent willingness of many library schools to let MLA do it without competition.

Social pressures are still changing library education, and education for health sciences and medical librarianship as well. Those students who typically sought a specialization in the past are less willing to do so now, partly from fear of training for a job that won't exist (at least when they graduate) and partly from a pocketbook sense that herds them towards corporate, private sector, and technological employment. This group apparently does not see the medical library as a corporate or high-tech entity. Those who do not want the corporate technology environment go to the opposite extreme and declare themselves candidates for small town or small college libraries. Many do not see (or do not want to see) the medical library, whether it is in a small town hospital or a major academic medical center, as an alternative. It is deemed "too specialized."

Several familiar types of students do persist, however; the supply of physicians' spouses, while diminished, is still steady, as is the trickle of students who come to their professional education

with some years of paraprofessional experience in a medical library. Increasing in number are the career-changers who seek medical librarianship specifically. Many are school librarians who want out of the public school system, and a few are burned-out nurses who want to get into a different and less harrowing area of the health sciences. In a recent class on Health Sciences Information Sources and Services, one faculty member encountered two physicians' wives, a nurse, a pharmacist, an African veterinary science librarian, an audiologist, a veterans' counselor, and a teacher of handicapped children. Each had especially sought out the single course, intending to pursue a career in medical librarianship.

#### SURVIVAL ISSUES

A number of accredited library schools (including Case Western Reserve, Minnesota, Denver, and the University of Southern California) are shutting their doors, while others on the edge of extinction have been reprieved for the moment. Many institutions of higher education are asking serious questions about the future of academic programs where problems in enrollment, placement, curricular strength, and faculty mass are perceived, if not yet documented. Some of the programs with full-time faculty specializing in medical librarianship are among those believed to be in danger. Some programs killed off their specialty library courses to survive the seventies; entire schools may be sacrificed in the eighties. Most will rework their curricula, learn to cope with fewer faculty; some will find new directions, but it remains to be seen whether these new directions will include specialist education for medical or health sciences librarians.

This somewhat forlorn picture of the present is not restricted to library schools and library educators alone. Social and technological changes have had their impact on medical libraries as well, whether they are situated in hospitals or large research centers. Budget cuts, personnel freezes, new subject fields, advanced and unfamiliar technologies, increasingly sophisticated users, institutional reorganizations, and the perception of personal obsolescence have had to be faced. Medical libraries (like other libraries and library schools) have been closed, forced into part-time service, or reorganized into Learning Resource Centers or other educational entities within the parent institution. Individual librarians have often seen their own training grow yearly less relevant. MLA's continuing education courses have been the major

\*Medical librarianship is not alone. Catalogers and technical services specialists are also poorly represented among the rising generation of library educators, for example.

focused effort to promulgate new skills and modern solutions, but not everyone has had access to these classes, courses, and workshops.

Both library education and traditional medical librarianship are teetering at the edge of a cliff. A new and brighter future is a possibility, but the bridge across the chasm will only be built through the cooperative efforts of many, including some who until now have been peripheral to both education and practice.

#### FUTURE PERFECT?

The decades ahead offer promise of more change, not less, for both library education and health sciences and medical librarianship. Medical libraries, and by extension those organizations and individuals that train medical librarians, have already responded to some of the changes, principally with the familiar extension of online search services and audiovisual support. Many library professionals are now equally at home with online catalogs and microcomputers, microforms and videotapes. Contemporary medical libraries may even take a modicum of pride in their relatively sophisticated document-delivery services and electronic mail capabilities (especially as DOCLINE is implemented) as well as in their well-developed resource-sharing network through the regional medical library programs.

However, the real challenge lies ahead. The successful "library" of the future must be a full partner in the technological and informational changes sweeping the health care community, not just a supportive or auxiliary service. The scenario has two acts: for the academic health center, the future is spelled IAIMS (Integrated Academic Information Management Systems); for the hospital, it is spelled MIS (Management Information System) or DSS (Decision Support System). These acronyms all arise from new management practices that recognize information as a commodity, a vital link in the chain of services and profits that begins with a patient's need for health care.

#### HOSPITAL LIBRARIES

In the hospital conglomerates of the future, traditional libraries and librarians will be finders and analysts of management information as well as clinical information. They will have to be familiar with business forecasting databases and electronic mail transmissions to scattered hospital and satellite management sites. A thorough knowledge of management resources, legal and government information, and statistical methods will be requi-

site skills for the ordinary librarian. The library in this hospital/corporate setting will house monographs, serials, databases, videotapes, audiotapes, laser disks, microcomputers, and software packages; the manager of all this may or may not be an individual with an M.L.S. degree.

The hospital library will be a profit-generating unit, selling its activities in and out of the hospital, so the librarian will be expected to be both an intrapreneur and an entrepreneur. It will be a center for both professional and consumer health information. Its manager will be as involved with consumer-oriented wellness materials as with life-and-death crisis management information. The brass plate on the manager's door may read "Chief Information Officer" or "Assistant Vice-President for Information Services." The most successful information managers will be full members of the institutional management team, working daily with the directors of clinical services and fiscal services and with the chief operating and executive officers. Will M.L.S. programs be able to train these individuals?

#### ACADEMIC LIBRARIES

In the academic medical center, a somewhat different scenario applies. The traditional library, serving faculty and students in a number of disciplines, will become an educational center supporting not only the familiar health science fields but also the emerging fields of medical informatics, artificial intelligence, medical management, and preventive health and health education. The director of the medical library, assuming a new title and role as director of academic information services, will preside over a collection of computers, CAI packages, software, robots, interactive videotext programs, and microform information systems, as well as the familiar monographs, serials, audiovisuals, rare books, archives, and database services.

The research component of these activities will become more important as the "library" becomes a full partner in funded academic research efforts. The library staff will become collaborators in the management of information, not just servants and collectors. The gatekeeper role will become more important, as will that of manager for all kinds of information systems and services, including word processing, statistical support services, student and faculty information files, and medical campus-wide information activities. A teaching role will emerge, as future health professionals need a more sophisticated education in the uses of technology. "Biblio-

graphic" instruction will become more firmly tied to the technological units in various professional curricula, and the staff of the "integrated academic information center" will assume responsibility for a teaching and research component of the health professions education.

Again, the professionals providing these services *may* hold the M.L.S. degree, but will an M.L.S. program educate them adequately? Further pressures in the medical information community come from other professions that are chewing off portions of the territory once claimed by librarianship. The new breed of drug information specialists (pharmacists with training in information technology) is offering services with databases, microform information systems, and reference books. Health educators (who hold a public health degree) are providing patient education and consumer/wellness services, using vertical files, audiovisuals, journals, databases, catalogs, and telecommunications. Medical writers (with technical writing degrees) are becoming intermediaries linking clinicians and researchers with the professional and public communities who wish to share the results of their work. Registered health records administrators (who eschew the old label "medical records librarian" and whose training includes courses on information systems) are now full members of the health care information team; some are already supervising M.L.S.-trained librarians in institutional structures that have the library as a subsidiary of the Health Records Division.

With very few exceptions, library education programs have nothing to do with the training of these individuals, even in institutions of higher education where all of these professions are represented. This parochialism of library education may be due to indifference, to the lack of dedicated faculty members, or to timidity in approaching health campuses viewed as higher-status. Whatever the reason, however, these professions are beginning to assume responsibility for activities and resources that were once the province of librarianship and libraries.

#### THE RESPONSE OF LIBRARY EDUCATION

Library education must somehow respond to these challenges and changes or else frankly abdicate responsibility for educating information professionals in health sciences. The traditional generalist one-year master's program probably cannot provide the specialized preparation medical librarians need for survival in the health information environment that is rapidly bearing down. Several responses are possible. Some schools and programs,

rightly deciding that they cannot mount such a specialty, will simply offer no courses in the area of medical/health sciences librarianship. Other schools, more fortunately situated, may embark on joint or dual-degree programs with their own universities' schools of public health, public administration, law, or health sciences, so their students can pair their M.L.S. with a J.D., M.P.H., M.H.A., M.P.A., or M.B.A. Dual-degree graduates would presumably be better paid by virtue of their second degree, and the extra costs of the additional training would be offset by the higher salaries they could expect.

Other library schools may consider a true specialty—a total M.L.S. curriculum focused on medical and health sciences concerns, with a formal internship in a technologically rich health sciences library, courses taught by faculty from different health professions programs, rigorous entrance requirements, an active recruitment program, and practitioners and educators who regularly cooperate in planning the specialty curriculum.

Perhaps the most successful programs will emerge in those few universities where new "centers of excellence in medical informatics" will be established. It is the intent of the National Library of Medicine to fund a number of institutions to enhance their programs in medical information science. Library schools in such institutions may be able to educate health sciences specialists in the rarefied atmosphere of such a center. For the individuals trained alongside those adventurous academics who are developing artificial intelligence or robotics programs in medical diagnosis or laser-disk-based instructional packages in the basic sciences, the challenges of being a chief information officer or the director of academic information services will be both exciting and manageable. For the library educator, the opportunity to share skills with these academic colleagues offers unparalleled opportunities for growth, research, and publication.

A center of excellence in medical informatics may also offer the ideal setting for corraling all the professions with an information component. Such a center can build a curriculum, a research effort, and a proper home for programs in medical librarianship, health education, drug information, health records management, and medical writing/communication, as well as health administration, medical information science, and medical technologies.

An international model also exists. There are now programs in both the United Kingdom and in West Germany which train individuals in medical

documentation and medical information science at three levels roughly equivalent to our B.S., M.S., and Ph.D. None of these programs is duplicated in the United States as yet.

Changes in both certification and accreditation also loom. A commission is already investigating alternatives to having only the American Library Association accredit first professional degree programs in librarianship. It is leaning toward a coordinated, umbrella approach to accreditation in cooperation with representatives from other professional associations (MLA, SLA, and ASIS, for example). A similar accrediting body already reviews programs in the health-related professions (such as medical technology and occupational and physical therapy). The Medical Library Association has already initiated changes in its certification procedures, stressing the use of mentors, sequences of C.E. courses, and post-M.L.S. preparation for an examination that will include more choices. Both efforts may foster an enhanced environment for specialty training: the accreditation may result in critical evaluation of M.L.S.-level specialists, and MLA certification may be a more realistic option for practicing medical librarians as well as recent graduates.

#### THE CRUCIAL CHOICES

Library education and medical librarianship are at a crossroads. Without change, neither will have a role to play in the exciting decades to come. The necessary changes will be effected only if active and successful practitioners work with those in the

library education community who are interested and experienced in the health sciences. These two groups must then work with many others—academics in the centers of excellence; chief executive officers in hospital conglomerates; technology specialists in telecommunications, robotics, artificial intelligence, laser and optical disks; and any number of specialized health professionals. A few good programs may emerge, and these programs can prepare health sciences librarians in the years to come.

It is unrealistic to believe that the status quo will continue for either library education or medical/health sciences librarianship. Those with a vision of a new cooperative venture and other similarly visionary health and information professionals may be able to put in place a few educational programs that can train effective new health information professionals and retrain and update the education of motivated medical librarians who see a future bright with technology, new academic and clinical structures, different managerial styles, and cross-professional cooperation. Part of the solution lies in an individual and institutional willingness to pursue new and as yet uncharted paths.

#### ACKNOWLEDGMENTS

The authors are grateful for the bibliographical assistance of Sandra Stocking and the clerical assistance of Jo Ann Hartz.

*Received November 1985; accepted December 1985.*