Vital pathways for hospital librarians: present and future roles

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Objectives: The research objectives were to (1) describe the current and future roles of hospital librarians and the challenges they face and (2) find evidence supporting the hypothesis that librarians are essential to hospitals in achieving the organizations’ mission-critical goals.

Method: The authors used results from a previous research study that identified the five organizational mission-critical goals important to hospital administrators and then searched the literature and solicited examples from hospital librarians to describe the librarian’s role in helping hospitals achieve these goals.

Results: The literature supports the hypothesis that hospital librarians play important roles in the success of the hospital. Librarians support quality clinical care, efficient and effective hospital operations, continuing education for staff, research and innovation, and patient, family, and community health information needs.

Conclusion: Hospital librarians fulfill many mission-critical roles in today’s hospital, providing the right information at the right time in a variety of ways to enhance hospital and medical staff effectiveness, optimize patient care, improve patient outcomes, and increase patient and family satisfaction with the hospital and its services. Because hospital librarians and their services provide an excellent return on investment for the hospital and help the hospital keep its competitive edge, hospital staff should have access to the services of a professional librarian.

INTRODUCTION

Rapid changes in health care have presented the health care community with a number of challenges. In 2007, the American College of Healthcare Executives outlined the top ten issues confronting chief executive officers (CEOs) [1]. In 2008, the National Priorities Partnership, a collaborative effort of major national health care organizations, was convened by the National Quality Forum to address health care challenges and set priorities. The partnership—which includes the Joint Commission, Institute of Medicine, Hospital Quality Alliance, National Institutes of Health, American Nurses Association, and American Board of Medical Specialties, among others—outlined six priorities in its study for transforming the health care system and identified the drivers of transformation that will enable the health care system to achieve these bold goals [2]. Access to and retrieval of knowledge-based information is essential for at least three of the six drivers cited by the partnership, specifically, “performance measurement,” “knowledge and research dissemination,” and “professional development.”

Access to knowledge-based information is addressed specifically in the “Management of Information” (IM) section of the most recent Joint Commission hospital accreditation standards, which state that “Knowledge-based information resources are available, current, and authoritative. The hospital makes cooperative or contractual arrangements with another institution(s) to provide knowledge-based information resources that are not available on site. The hospital provides access to knowledge-based information resources 24 hours a day, 7 days a week” [3]. In addition to the IM standard, knowledge-based information is integral to the Joint Commission standards for “Nursing,” “Management of Environment of Care,” “Leadership,” “Patient Care,” and “Improving Organizational Performance” [4]. The American Nurses Credentialing Center’s Magnet Recognition Program recognizes the value of having knowledge-based information available to support evidence-based practice for nurses. Almost 95% of the magnet hospitals have access to knowledge-based information resources provided by libraries and librarians [5].

Hospital librarians’ roles have evolved to meet the challenges of this changing environment. Tradition-
ally, they have acted as information service providers, collection resource managers, and consultants to other departments in the hospital that address the training and education needs of employees and staff [6]. Many now provide support for the use of process improvement tools to increase efficiency and reduce costs, organize and promote access to evidence-based resources for patient-centered hospital care, help extend that care beyond the hospital walls, assist with the widespread adoption of health information technology, and help address barriers to patient and family engagement, such as low health literacy and cultural preferences. To fulfill these roles, hospital librarians must continually update their knowledge and skills, and they must link their skills and services to the provision of quality health care.

The following white paper has been developed by the Medical Library Association’s (MLA’s) Task Force on Vital Pathways for Hospital Librarians to describe the current and future roles of hospital librarians and the challenges they face in adapting to the changing health care environment and new health care initiatives. This white paper builds on a 2002 study commissioned by MLA on the contributions of library and information services to hospitals and academic health centers [7]. It discusses five mission-level goals identified by administrators and directors in that study and describes how hospital librarians currently contribute to them. These five goals are:

- Clinical care: provide excellent clinical care and promote clinical learning
- Management of operations: promote sound management decisions, increase profitability, meet accreditation standards, reduce corporate risk, and provide an organizational learning environment, staff satisfaction, and institutional attractiveness
- Education: provide excellent educational programs, resources, and services necessary for teaching and learning
- Innovation and research: adopt innovative technologies and practices and foster research
- Customer service: improve lives of patients, families, and community members

This white paper is intended to serve as a catalyst for dialogues between hospital librarians and administrators on the contributions that hospital librarians can make to forwarding the vision and goals of hospitals. The sections outline key roles that hospital librarians play in helping organizations achieve each goal and include scenarios illustrating these roles. For consistency throughout this paper, the term ‘hospital librarians’ is used to describe those professionals who provide clinical and health information services in the hospital setting to physicians, nurses, allied health care workers, patients and their families, and health care consumers in the community.

THE HOSPITAL LIBRARIAN AND CLINICAL CARE

The American College of Healthcare Executives (ACHE) continues to view patient safety and the quality of patient care as major concerns for hospital CEOs [1]. Hospital librarians regularly help hospitals address these issues by developing systems to acquire, organize, and disseminate essential resources that promote clinical learning and assist clinicians in providing excellent clinical care. Applying their expert knowledge of information retrieval systems and the vast range of published and unpublished resources, they can search out the best evidence to support both clinical decision making and development of policies and procedures related to clinical care. They regularly alert clinicians to new knowledge about clinical practice and collaborate with nurses and other health professionals to develop patient education materials that reinforce the verbal explanations and instructions essential to the patient care process.

Providing library services by qualified library professionals is key to assuring a well-trained and well-informed clinical work force. Finding authoritative and relevant information about complex clinical cases and other high-impact areas of patient care and patient safety requires the expertise of experienced searchers who understand a variety of search engines and interfaces. The results obtained by untrained or unsophisticated end-user searchers are, at best, of questionable quality and, at worst, dangerous. Over the years, databases like the National Library of Medicine’s MEDLINE have become more user-friendly, leading clinicians to believe that database searching can be done by anyone, not realizing that effective searching requires training and practice [8]. When asked, clinicians often indicate a higher level of satisfaction with librarian-mediated searches than with their own searches [9]. The knowledge and skills required to perform complex literature searches are outlined by MLA in its policy statement, “Role of Expert Searching in Health Sciences Libraries” [10], and include the following:

- ability to accurately identify an information need through effective personal interaction, to clarify and refine the retrieval requirements, and to apply subject domain knowledge to place an information need in the context of a discipline;
- ability to identify and search resources beyond the electronically available published literature, including older published literature, gray literature, unpublished information, and web documents;
- knowledge of database subject content, indexing or metadata conventions, and online record format to determine relevance to the information need and the method of retrieval access;
- expert knowledge of retrieval system interfaces and retrieval system logical, positional, and weighting capabilities;
- ability to efficiently and effectively evaluate retrieval evidence to determine closeness of fit to requestor’s recall and precision requirements, expectations, or subject domain familiarity.

Hospital librarians’ contributions to support informed and timely clinical decision making have been previously documented [11]. Indeed, a recent system-
atic review of the literature demonstrated evidence of positive impacts on patient care from both traditional and clinical librarian services [12]. In addition, hospital librarians frequently take their skills directly to the site of health care delivery and other venues throughout the hospital. They participate in patient rounds and morning report, locating studies that result in changes in patient care [13], and they often have a positive impact on patient length of stay [14]. Furthermore, they support journal clubs that improve clinicians’ skills in critical appraisal of the literature and application of findings to patient care [15], contribute to multidisciplinary clinical teams working on improvement efforts [16], offer methods for creating information and knowledge tools at the bedside to improve care and patient safety [17], and even write articles for physicians offering tips for effective searching [18].

As these examples show, close collaboration between clinicians and librarians can provide effective results. Using physicians’ knowledge of clinical practice in combination with librarians’ knowledge of databases, search engines, and health information resources yields the best results and contributes to the education of both parties [8]. Likewise, combining librarians’ search and retrieval skills with nurses’ and allied health professionals’ subject knowledge enables the development of patient education materials that are based on the best available evidence and written to be representative of local practice. Through expert literature searching, hospital librarians also contribute to the development of evidence-based clinical guidelines in their institutions [15, 19].

Librarians also can contribute to the institutional culture of quality by continuously evaluating their services and communicating to hospital administrators the impact of the library and librarian on other disciplines involved in meeting the hospital’s mission of safe and high-quality patient care [20].

Hospital librarians are an integral part of the clinical care team and need to be deployed throughout their organizations for the maximum benefit of clinicians who are dedicated to evidence-based practice (Figure 1).

THE HOSPITAL LIBRARIAN AND THE MANAGEMENT OF OPERATIONS

Hospital librarians play a key role in supporting efficient and effective hospital operations by providing information and services to decision makers throughout the hospital. This support can take many forms, including providing background information for planning, performing expert searches for quality improvement teams, increasing profitability by minimizing the amount of time and money health care professionals spend finding relevant diagnostic and treatment information, providing knowledge-based information services to meet accreditation standards, disseminating information on best practices to reduce corporate risk, managing copyright compliance, reducing organizational expenditures, and fostering institutional attractiveness for current and future staff members.

Hospital librarians regularly receive requests from hospital staff who are conducting quality improvement (QI) projects on topics as diverse as pressure ulcers, patient misidentification, or situation-background-assessment-recommendation (SBAR) technique. Librarians can support QI efforts by providing comprehensive literature searches on requested topics, by serving as members of QI teams [21], and by organizing applicable information resources on the library’s website, including links to key publications of organizations such as the Institute for Healthcare Improvement.

Hospital librarians support profitability by providing clinicians with information to support their care of patients, including reduction of patient lengths of stay [14, 22], and by freeing up the clinicians’ time to concentrate on direct patient care [12]. Hospital librarians’ advanced comprehensive expert searching skills—including finding, organizing, and critically evaluating research and evidence-based information—can help health care providers decrease unnecessary diagnostic tests, positively affect treatment decisions, and improve patient care [11, 23]. Because hospital librarians are able to locate the same information in a much shorter time, compared to less experienced searchers, it makes better financial sense to use a librarian who has the refined expert searching skills acquired in a master’s-level information science degree program. Librarians also can support timely decision making by prepackaging information and arranging information alerting services for key risk-management groups, such as patient safety [24, 25] and infection control committees. Further, librarians can reduce institutional costs by centralizing purchases of publications and electronic databases, eliminating duplication across departments.

Hospital librarians can help reduce corporate risk by disseminating information to support evidence-based practice [21, 26, 27], compliance with changing government regulations [28], and adherence to corporate compliance and copyright compliance. Librarians can also assist with integrating knowledge-based resources into electronic medical record systems [29], enabling improved access to information at the point of care, and subsequently reducing the risk of malpractice and improving patient satisfaction.

Information overload leads to frustration for many hospital workers. Hospital librarians use their expert
information organization and retrieval skills to reduce staff frustration and enhance the overall job satisfaction of hospital and health professionals throughout the institution [30]. Providing excellent library and information services is an employee benefit that is often overlooked by employees and administrators alike. Not only do these services enhance job satisfaction for employees, but they also play a vital role in increasing profitability and supporting operational decision making for the hospital as a whole (Figure 2).

THE HOSPITAL LIBRARIAN AND EDUCATION

The Institute of Medicine has defined a new vision for health professional education centered around five core competencies [31]. Access to and management of knowledge-based information is important to all five competencies, but essential for two: “employ evidence-based practice” and “utilize informatics.” Hospital librarians have a tradition of supporting the education needs of employees and staff [32]. Those who work in large academic health centers provide a wide range of services for medical students, residents, and clinical faculty to support the teaching mission of these institutions [33]. But even in the smallest rural and urban community hospitals, librarians play a key role in providing information services to support continuing education [34, 35]. Hospital librarians support both health care professionals and staff, helping them develop and maintain proficiency in core competencies. They support continuing education (CE) for all professional disciplines; play a role in preparing staff for licensing, certification, and recertification examinations; and provide technical and educational support for employees who are completing mandatory annual review compliance. Some librarians have become more involved in continuing medical education (CME) by serving as CME program managers, by providing support to the presenters of educational programs, and by working with CE coordinators to identify current education needs [35].

Because librarians work in a technology-intensive environment and because key resources in libraries are now accessed electronically, many hospital librarians have expanded beyond traditional education services [36]. They support staff by providing access to onsite and electronic health learning resources, by partnering with hospital educators to develop and manage online and web-based computer-aided learning content [37], and by managing and providing technical support for computer training facilities. Some librarians collaborate with other disciplines and departments in the hospital to manage and deliver content in an e-learning environment and to create systems and repositories for managing learning objects and curriculum resources [38, 39].

In addition to providing library services to support education, librarians are uniquely qualified to teach staff how to search the knowledge-based literature, how to find the best evidence for clinical decision making, and how to find high-quality information on the Internet, and they teach staff about basic health information and cultural literacy skills. Working with medical and health educators, hospital librarians can develop competency-based curricula for instruction in evidence-based information retrieval [33, 40] and provide discipline-specific instruction on formulating the research question, developing search strategies, and evaluating resources for levels of evidence and methodological rigor. Individualized point-of-need instruction is frequently offered to health care team members as they participate in conferences or rounds. This is done by demonstrating or suggesting how to find knowledge-based resources specific to the topic at hand (Figure 3).

THE HOSPITAL LIBRARIAN AND INNOVATION AND RESEARCH

Scientific investigation or inquiry is the backbone of new knowledge development. The transfer of new knowledge into practice leads to innovation. Hospital librarians can support the information needs of hospital-based researchers as well as those of clinicians and administrators who put that research into practice. A key objective in the National Institutes of Health (NIH) strategic plan is to “Communicate and transfer research results into clinical, public health, and human service practice” [41]. Hospitals that can effectively and efficiently identify and adopt best practices achieve better patient outcomes and greater operating efficiencies. Experts in health quality research assert that evidence-based medicine (EBM) must be accompanied by evidence-based management (EBMgt), in other words, organizational strategies and structures that enable clinicians to put new clinical evidence into practice [27]. Hospital librarians are leaders in knowledge management and support EBMgt by providing services that facilitate the adoption of new practices and technologies in the hospital setting [26]. Not only do these valuable services contribute to making the hospital more effective, they also improve the hospital’s internal and external image.
Innovation and research scenario

The medical librarian at a noted cancer center electronically retrieved an article on health care disparities and sent the link to a researcher seeking an article to fill in a major gap in a grant. This research grant was subsequently funded, providing the cancer center with a 5-year, $4.3 million grant to study and address health care disparities.

An organization’s ability to improve, learn, and innovate is tied directly to its long-term value [7]. For the hospital administrator attempting to accelerate the rate of diffusion of innovation, the hospital librarian is a natural partner. Hospital librarians promote and facilitate the adoption of new practices and speed the diffusion of new technologies in the hospital by helping eliminate the barriers to information dissemination [26]. They can provide continuous alerts and updates about new practices and information demonstrating how new technologies and practices have been used in other hospital settings. Through comprehensive literature searching and retrieval of benchmarking data, hospital librarians uncover comparative information on hospital innovations that help administrators and clinicians evaluate the soundness of their actions before wasting valuable time and money.

Many hospital librarians provide support for clinical researchers during the initial stages of their research. Searching for collaborative innovation partners and other subject experts, mining data, and filtering information can all contribute to reducing the time researchers spend locating information, providing more time for data analysis. Librarians can also provide information necessary to prevent duplication of research efforts and provide support for writing research proposals [37]. They can access the old literature that may not be available electronically. General discussions about the decline in the use of medical librarians as search intermediaries came to a head in 2001 with the report that the death of a research subject at Johns Hopkins University could have been prevented if the research investigator had conducted a more thorough search of the relevant literature in older print resources in addition to those in electronic formats [42].

Major gains in efficiency in clinical or research settings have also been achieved by making information gathering easier and more straightforward through investing in dynamic, responsive access to online resources [43]. Hospital librarians provide leadership in information management for hospitals. Using their expert searching skills, they assist researchers and clinicians by locating and disseminating information to facilitate the translation of bench and clinical research into clinical practice (Figure 4).

THE HOSPITAL LIBRARIAN AND CUSTOMER SERVICE

How a hospital performs from the perspective of its customers—in this case patients, families, and the community at large—is a significant priority for hospital administrators because it is important to the economic viability of the institution. Health care consumers are playing an increasingly larger role in their own health care decisions, becoming “expert patients,” who have access to more information, are more demanding, and are accustomed to service, satisfaction, and transparency in cost and quality [37]. New attention and resources are being targeted to providing the right care to the right patients in the right place at the right time. Also, the ability to provide quality patient or consumer information tailored to a wide range of cultural, educational, and language needs is critical because, if patients are to make informed choices about their health care, then appropriate information services and resources must be provided. To that end, the hospital tries to improve lives of patients and families through education programs and to improve the lives of community members through outreach programs [7].

Hospital librarians can provide valuable customer service by marketing their services directly to patients and their families, selecting, personalizing, and filtering quality information for them at their health literacy levels. Having access to increased volumes of information does not guarantee that one can find the best information. Finding incorrect information could have a negative impact on an individual’s health [44]. Also, it is estimated that 75 million adults in the United States have basic or below basic health literacy skills [45]. Low reading skills and poor health are clearly related [46], especially when it comes to managing common, but complex illnesses like diabetes. The Joint Commission acknowledges that low health literacy levels and ineffective communications can compromise patient safety and emphasizes the fundamental need for patients to locate and evaluate health information in order to self-manage their own health care. To do this, an individual must be able to locate health information, evaluate that information for relevance and credibility, and analyze risks and benefits. For those with limited literacy skills, this is a significant challenge. Even people with high literacy can have low health literacy and a compromised understanding of health care information because the information is outside of their field or they are challenged by age, sickness, and feelings of vulnerability [47].

Assisting patients to obtain the best health information at the point of need is only one of the valuable services provided by hospital librarians. In many institutions, hospital librarians have expanded their roles to provide classes in health literacy and cultural literacy competencies. They also partner with their community outreach departments, going out into their communities to health fairs and community events. They teach classes to their communities on how to find the most credible and reliable health information, and they offer classes on MedlinePlus, the National Library of Medicine’s premier database of consumer-friendly health information. They work
with nurse educators in hospitals and social workers in the community to provide needed information, helping families locate community support services. They also support disaster preparedness and emergency response programs in hospitals and communities. Together with their professional colleagues, they assure that information about care providers and community health resources are easily accessible through collaborative efforts such as MedlinePlus Go Local [48].

The hospital librarian provides services that create value for the organization, thereby enhancing the hospital’s role as a trusted hub of learning and community. Research studies suggest that professionally led library services have a positive impact on health outcomes for patients [12]. The trust patients and health consumers place in health information sources and providers is the key factor affecting consumer use of such information. Hospital librarians help remove the barriers that deny patients’ access to quality health information and provide services that enable patients to be partners in making decisions that will affect their own health outcomes and that increase patients’ and their families’ satisfaction (Figure 5).

CONCLUSION

From saving hospitals thousands of dollars per year to saving patients’ lives, hospital librarians fulfill many mission-critical roles in today’s hospital. These roles include that of expert searcher, educator, community outreach provider, promoter of EBM, information disseminator, effective user of information technology, website manager, patient safety information provider, and supporter of innovation and research.

Support of clinical care and education in the hospital is of the utmost importance. Hospital librarians effectively manage huge volumes of information, providing the right information at the right time to enhance medical staff effectiveness, optimize patient care, and improve patient outcomes. They save clinicians time, thereby saving institutions money. They provide an excellent return on investment for the hospital, playing a vital role on the health care team from a patient’s diagnosis to recovery. The services that hospital librarians provide are a real employee and community benefit, building staff satisfaction with their jobs and patient and family satisfaction with the health care that they receive.

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