Hospital librarians’ perceptions related to evidence-based health care*

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INTRODUCTION

According to the 2006 needs assessment conducted by the Hospital Libraries Section (HLS) of the Medical Library Association (MLA), 30.4% of the members responding to the assessment considered evidence-based medicine (EBM) the most important issue they would face in their workplace over the next three years [1]. The responsibilities and support systems of hospital librarians desiring to foster clinicians’ practice of evidence-based health care (EBHC) might vary significantly from those of academic librarians. Scherrer et al. reported, “The academic librarian who supports active evidence-based practice curricula in health professions colleges will need teaching approaches that are appropriate for instruction of students in a classroom, while the hospital librarian may be looking for point-of-need instructional techniques that would be effective with residents and clinicians” [2].

While the EBHC support–related needs of individual librarians in either the academic or hospital settings will likely include other approaches as well, the specific needs and attitudes of hospital librarians toward EBHC have not been well explored. This paper reports data collected via a larger survey of hospital librarians regarding hospital librarians’ perceptions of the skills required to support EBHC. Results of the survey may be used to inform exploration of the extent to which EBHC has penetrated beyond the academic medical library sphere into the domain of the hospital library and indicate areas for further training for librarians.

METHODS

The methodology employed was a cross-sectional survey. The chair and members of the board of the HLS gave their support for the survey and the University of Illinois at Chicago’s Institutional Review Board granted approval.

The researchers developed a thirty-four-item survey (Appendix online) using the SurveyMonkey tool. Five colleagues experienced in teaching, practicing,
and researching EBHC piloted the survey prior to distribution. Pilot data were used to refine the survey and were not included in final analysis.

The survey link was distributed to HLS members via an email message submitted by the section chair to the section email discussion list (hls-list@hls.mlanet.org) in November 2006. All list members were eligible to participate in the survey. Subjects were informed that participation was voluntary and that all responses would remain confidential. Two email reminders with the survey link were sent approximately two weeks apart (Table 1 online), and the survey remained available for thirty-five days. Descriptive statistical analysis of responses was performed using the Statistical Package for the Social Sciences (SPSS) software.

RESULTS

Demographics

Two hundred and six responses were received. Countries represented were Canada, New Zealand, Singapore, Spain, and the United States, including Guam. The 3 states with the largest responses were California (24), Pennsylvania (16), and Illinois (12).

Of the 204 respondents answering the question, “What is your highest degree earned?”: 89.7% (n=183/204) held a master’s of library science, 16.6% (n=34/204) reported a different master’s, and 1 individual held a doctoral degree. Nearly 45% of respondents (n=92/206) reported more than 20 years of experience as a medical librarian, and 9.3% (n=19/206) had worked less than 5 years as a medical librarian. The majority of respondents, 90.7% (n=186/205), had worked in health sciences libraries for more than 5 years (Table 2).

Barriers

The most frequently cited obstacles to supporting the practice of EBHC were lack of time (42.7%, n=88/206) and unfamiliarity with statistical concepts (32.5%, n=67/206) (Table 3). When asked to cite degree of agreement with the statement, “The statistical component of EBHC practice—such as number needed to treat, absolute risk reduction versus relative risk reduction, confidence interval—constitutes a significant impediment to my becoming more actively involved in EBHC,” 58.2% (n=120/206) of respondents either agreed strongly or somewhat, while 34.9% (n=72/206) disagreed strongly or somewhat (Table 4).

Support for evidence-based health care (EBHC) practice

When asked whether anyone in their hospitals had requested a literature search about EBHC, 57.2% (n=118/206) of respondents indicated that nurses initiated the request. Slightly over 67% (n=139/206) of respondents indicated that they had been asked for a definition of or descriptive article about EBHC. Of those respondents, 84.1% (n=117/139) described the requestor as a nurse (Table 4).

Use of EBHC techniques and knowledge building

Roughly 26.6% (n=55/206) of respondents noted frequently (several times/month) or regularly (once/week) reading EBHC articles, while 59.7% (n=123/206) had taken a formal EBHC class. A moderate percentage of respondents also noted formalizing information needs into focused clinical questions when executing literature searches, with 42.7% (n=88/206) noting they regularly structured questions in a patient, intervention, comparison, outcome (PICO) format.

DISCUSSION

In alignment with other studies, time was cited in the present survey as a major barrier to hospital librarians’ engagement with EBHC practice. For example, a Cephalalgia study stated unequivocally, “Practicing EBM takes time” [3]. Librarians queried by Sathe et al. also mentioned time as a barrier [4]. In a study examining information-seeking behaviors of physicians in a practice-based research network, 76% of the respondents indicated that a lack of time was the primary barrier to using available information resources [5]. In a literature review examining data from the years 1975–1999, Dorsch also reported that time needed to practice EBM [7–12].

Practicing EBHC requires training as well as time. As Klem and Weiss note, “evidence-based practice (EBP) requires acquisition and use of a complex set of skills, including the ability to locate and critically evaluate clinically relevant research literature” [13]. In
the nursing arena, Ciliska adds, “Being able to use research within the evidence-based nursing] EBN process involves skills different from those that can be achieved in usual research and statistics courses” [14]. While librarians are generally considered masters at locating literature, critical appraisal of the literature may necessitate adding to their arsenal of skills.

Respondents’ reservations about statistics suggest that research methodology should be emphasized in library science programs. This survey’s responses correlate well with a respondent’s comments in Sathe et al.’s recent study; the respondent notes: “Library science programs seem to, in general, do an abysmal job of training students in research methodology. This reflects poorly on the field itself” [4].

Similarly, in their survey of participants in a class aimed at preparing teachers of EBHC, Scherrer et al. reported that “While the introduction to these concepts improved [participants’] knowledge considerably, few felt it improved enough to actually teach these concepts to others. When asked if there were areas of EBM they would be interested in receiving more training in, seven of the twenty-eight (25%) mentioned statistics, possibly in the form of a refresher course” [2]. Furthermore, in the same study, “When asked why they did not teach statistics, the most common comment was that the respondents did not feel they had enough knowledge of statistics to teach it.”

Exposure to and study of research methodology as a discipline may alleviate the reservations librarians express towards the statistical component of EBHC. Studying research methodology without “medicalese” may also be helpful. Eldredge has outlined relevant research methods for the library field, for example [15].

Another interesting finding of the survey is the awareness of EBHC demonstrated by nurses and the potential role the hospital library can play in working toward Magnet status. Magnet status reflects a recognition process sponsored by the American Nurses Credentialing Center that requires participating hospitals to exhibit fourteen attributes related to quality of nursing care and organizational support for quality [16].

One respondent commented, “EBHC is of great importance to the nursing department of a Magnet hospital, so I have been very actively involved in teaching these concepts to nurses,” while another said, “As more hospitals apply for Magnet Status, librarians will be called upon to assist nurses and managers with research and education. It is essential that we understand EBHC and learn how to help educate clinicians about this topic.” A third librarian stated, “Evidence-based medicine is very important in my hospital setting. The Nursing council and nurses constantly ask the medical librarian for evidence-based medical literature to support new protocols, new procedures, new standards, etc. It is very exciting to see this.” The literature confirms these observations. Shirey [17] calls evidence-based nursing practice the “wave of the future,” while Turkel et al. [18] deem it an “essential component of the magnet journey.” The present survey results also underscore the importance of nurses as a target partner group for hospital librarians.

Limitations

Descriptive surveys present several methodological challenges. Questions may unintentionally mislead the respondents, and researchers must assume that the answers given by respondents are all equally truthful and honest answers [19]. In addition, selection bias can occur because responders to a survey self-select and there is no randomization to offset bias. As Robert Wood Johnson Foundation survey research guidance notes, “research that relies entirely on the self-selection of respondents, or on the researcher’s purposeful selection of respondents, cannot be used to generalize to a larger population” [20]. The researchers were unable to determine how different the reporting sample was from those who received the questionnaire but chose not to participate. For example, those who chose not to respond may have been uninterested in EBHC or unfamiliar with the concept.

Individuals not contacted for the survey, that is, hospital librarians who were not HLS members, might also have differed significantly from the contacted group. In addition, the mailing list used to distribute the survey might have included librarians who were not employed in hospitals.

Also, the survey’s sample size was small. To maximize the response rate, 2 reminder emails were sent. Yet, only 206 replies were received from the roughly 1,200 subscribers to the HLS mailing list in the survey timeframe. Although there has been some research indicating that a large response rate does not differ significantly from a smaller response rate [21], a low response rate raises the question of nonresponse bias, “the extent to which non-respondents and respondents differ on the key behaviors and attitudes being measured in the survey” [21].

Implications for further research

Reaching librarians who are not members of MLA or another professional organization may prove a challenge, but further research could examine their educational level, the level of institutional support they receive for continuing education, and their degree of exposure to EBHC. A survey that probes the views of both medical librarians affiliated with hospitals and with academic medical libraries may also reveal differences between the groups.

CONCLUSIONS

Significant barriers to hospital librarians’ promotion of EBHC revealed in this study are lack of time and lack of understanding of statistical principles. It is critical that the community take steps to overcome these perceived deficits as hospital librarians can exert a positive influence on the promotion and implemen-
tation of EBHC. In the United Kingdom, for example, the National Health Service’s Executive Guidelines on Library and Information Services state that “libraries and their staff play a central role in supporting evidence-based clinical practices” [22].

The practice of EBHC also represents an important component of pursuing Magnet status by a hospital nursing staff. This survey demonstrates that nurses often rely on the hospital library to develop their understanding of EBHC facets and points to an important constituency for hospital librarians. Results of the survey can be used to inform the development of aids to enhance the use of EBHC by hospital librarians. Such aids might include tools to promote enhanced administrative support for the hospital librarian’s efforts to promote EBHC. Such support could be demonstrated by providing continuing education funds and protected time for the librarian’s study of EBHC methodology, as well as keeping clinical staff apprised of the librarian’s skills.

Because of their contact with clinicians at the point of care and their roles as information providers in hospitals, hospital librarians are in a position to contribute to promoting and enhancing the practice of EBHC. Further exposure, education, and training may help hospital librarians with reservations about EBHC to increase their support for its practice.

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