Evidence Based Library and Information Practice

Commentary

Making a Commitment to EBLIP: The Role of Library Leadership

Suzanne F. Grefsheim, MEd, MSLS
Director, NIH Library
National Institutes of Health
Bethesda, Maryland, United States
E-mail: grefshes@mail.nih.gov

Jocelyn A. Rankin, PhD, MLn
Chief, Public Health Library and Information Center
Centers for Disease Control and Prevention
Atlanta, Georgia, United States
E-mail: jrankin@cdc.gov

Susan C. Whitmore, MS, MSLS
Chief, Information and Education Services Branch, NIH Library
National Institutes of Health
Bethesda, Maryland, United States
E-mail: whitmors@nihrrlib.ncrr.nih.gov

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Introduction

Several commonly held assumptions form the basis for the information profession's emerging commitment to advance evidence based library and information practice (EBLIP). First, librarians should practise according to the same principles advocated for library users — that is, base their information practice decisions on the best possible evidence (Dalrymple et al; SLA Research Committee and Marshall; Brice and Booth; Eldredge). Second, the body of evidence does not exist currently to make finding evidence in the literature a realistic possibility in most cases (Booth; Glynn). Third, many practising librarians are not comfortable designing and conducting their

own research (Glynn). And fourth, employers need to create conditions that encourage research in the workplace (Hallam and Partridge; Crumley and Koufogiannakis; Cleyle).

We have focused on the fourth assumption, that library management and administration play a pivotal role in the success of widespread adoption of EBLIP. For example, the Association of Research Libraries' recent two-year study on the status of assessment in research libraries found that certain organisational factors appeared critical for effective, sustainable library assessment projects. Among these factors were library leadership, organisational culture, identifying responsibility for assessment, library priorities, sufficiency of resources, data infrastructure, and assessment skills and expertise (Hiller et al).

In their frequently cited article, Hallam and Partridge suggested that employers have the following responsibilities for EBLIP: providing opportunities and resources; encouraging ongoing learning to maintain or develop skills; providing training opportunities for graduate students in library and information science (LIS); advising graduate program LIS faculty on needs; serving as guest lecturers for LIS programs; including evidence based practice as part of staff appraisal; encouraging more experienced staff to mentor novices; and providing opportunities for collaboration with academic researchers (Hallam and Partridge). We believe that, to control their own destiny, library leaders must be much more active in advancing EBLIP among their staff. On a broad range of issues, they need to develop the evidence that supports shifts in resources and services and justifies emerging roles and innovative/experimental services, or they risk having decisions about their future made for them by others in their organization.

Employers taking a proactive role in creating an EBLIP culture benefit at several levels, both in more robust customer support provided by staff members and also in strengthened capacity to respond to organizational requirements. Health science librarians with working knowledge of evidence based methods are well prepared to support evidence based practice for clinical and research staff in their larger institution. They are also inclined to engage in evidence based information practice to inform their own practice-related decision-making. At the organisational level, in today's rapidly evolving information environment, libraries are routinely required to conduct studies to assure they are both meeting the needs of users and achieving the expectations of their parent organization in order to justify continued funding. Typical studies include customer needs assessments and satisfaction surveys; usability studies; program evaluation, outcomes and impact studies; systematic performance measurement approaches such as the "balanced scorecard"; cost/benefit and trend analyses. While hiring an outside consultant is an option for large-scale studies, employers also need internal staff with the knowledge and skills to design, conduct and appraise studies for the wide range of questions that routinely arise in the practice of librarianship.

One Library's Commitment to Research

We offer the experience of the National Institutes of Health (NIH) Library in Bethesda, MD as an example of what employers can do to better prepare their staff to find the evidence to answer questions that arise in practice and perhaps even help assure the future of the library. The NIH Library is a biomedical research library with a staff of 56 full-time employees and 20 contractors that supports a major U.S. government agency engaged in translational bench-to-bedside research. The NIH itself

has over 20,000 employees, about half of whom are in the scientific and clinical positions that constitute the Library's primary user group. Users include researchers and fellows in the laboratories and clinics as well as the science administrators working in the various grant administration programs. The NIH Library's virtual services and collections are comparable in size and scope to a large academic biomedical library.

Just as is frequently the case with busy health care practitioners (Coumou and Meijman), practice-related questions encountered by NIH Library staff also were often left unanswered. Only a small number were addressed each year, and those only if they fit into a regular user survey — either the large-scale rigorous biennial user study or smaller annual Web or print surveys targeted to assess specific services.

Crumley and Koufogiannakis categorized "librarianship questions" as falling into one of the following six domains of practice (Crumley and Koufogiannakis):

- Reference/enquiries – providing services and resources that meet the needs of users
- Education – finding the best methods to educate users
- Collections – building high-quality collections that meet the needs of users
- Management – managing people and resources within the organisation
- Information access and retrieval – creating better systems
- Marketing and promotion – promoting libraries to users and non-users

Questions in all these domains had arisen at the NIH Library in recent years. The library leadership team realized that informing library practice by surveys alone would not produce answers to many of the questions. This recognition of the need to augment practice research was reinforced by the results of an environmental scan of the NIH that was commissioned as part of the preparations for the revision of the library strategic plan. Influential stakeholders at the highest levels within NIH were interviewed as part of the scan. One of the key findings noted by the consultant who conducted the interviews was that the library staff needed to be doing its own research into user needs and information seeking behavior. As a result, evidence based information practice became a major focus of the library's vision statement in the 2005-2009 strategic plan.

Positive Environmental Factors

To create the conditions that would make our vision a reality, the NIH Library leadership team planned and implemented a systematic approach to fostering EBLIP that was compatible with the library's long-standing commitment to be a learning organization. The goal was to enable staff to routinely apply evidence in decision-making. It was determined that 38 staff members were in positions that had potential to benefit from EBLIP training as follows: all 32 librarians, four of the 10 library technicians, and two of the four IT professionals. Their work raised answerable library research questions and they were in positions best suited to answer them.

A survey of these individuals revealed a typical health sciences library staff — quite a few library staff members had scientific research experience and more than half had working experience with research initiatives. However, few if any had ever designed the type of study required for "librarianship questions".

Motivational Factors for Doing EBLIP Research		
	Percent Ranking as 4-5 (*n*=33)	**Overall Rank Order**
Training	64%	4.84
Opportunity to collaborate with library staff	61%	4.60
Opportunity to present at professional meetings	58%	4.52
Release time	45%	3.68
Mentoring	39%	3.96
Opportunity to present to other library staff	33%	3.84
Inclusion in performance appraisal	33%	3.68
Special funding	21%	2.80

Table 1. On a scale of 1-5, with 5 as most important, staff rated these motivational factors.

We also wanted to understand what might help inspire NIH library staff to perform EBLIP research. The leadership team asked the staff about the environmental and/or administrative factors that were most important to them. Of the eight factors suggested, training was most valued: all the staff participating in the EBLIP project wanted a basic introduction to EBLIP, and training in quantitative and qualitative research methods that could be used to answer practice questions. Also important to these staff were opportunities to collaborate with colleagues and to present at professional meetings. Release time was also highly valued by some, although overall it fell into the middle range of the rankings. The least motivating factors at our library were special funding, presentations to other library staff, and adding research as a performance appraisal metric [Table 1]. We concluded that an environment supportive of EBLIP would include formal training in research skills that builds on existing expertise as well as support and release time for research projects, and team mentoring as projects evolved. Recognition for staff efforts and accomplishments was considered as well. A celebratory Library Research Festival Day was discussed and librarians were encouraged to submit their projects for presentation in the larger annual NIH Research Festival, an annual three-day event with poster and paper sessions that showcase current research of NIH staff in all the institutes and centres.

EBLIP Training for Library Staff

Prior to developing the training plan, library leadership worked with the various staff teams to identify several of the librarianship questions that had arisen in the previous six months. These questions [Table 2] provided a focus for exercises used in both the introductory research class and the qualitative research methods course.

The first class provided an overview and rationale of the characteristics of evidence based research for information practice. The research steps were outlined, including posing the question, selecting the methodology and study participants, analyzing the data and reporting the results. Using a Research Jumpstart Worksheet that took them through the steps in the research

Recent Practice Questions at the NIH Library	
Domain	**Question and Research Method**
Information access & retrieval	1. *What features and capabilities do NIH researchers want in a federated search engine? Method: exploratory formative research using focus groups and key informants*
Reference	2. *Did selective purchase of articles vs. borrowing from other libraries impact customer satisfaction with document delivery services? Method: program evaluation with a comparative study of customer satisfaction as measured by an online survey administered for 2 weeks in December 2005 and for 2 weeks in February 2007.*
Management	3. *Did the transition to paraprofessional staffing at the Information Desk affect user satisfaction and/or staffing efficiencies? Methods: two-part program evaluation with a comparative study of customer satisfaction with Information Desk services as measured by a survey in February 2006 and February 2007; and a cost/time analysis by sampling paraprofessional and librarian support of desk services for one week every other month during 2007.*
Reference	4. *What is the value of an informationist assigned to a health sciences team? Methods: two-part exploratory research using the diary method to record critical incidents related to their work both retrospectively and prospectively; and key informant interviews with customers to discover researchers' perceptions of informationists' roles, and their contributions and challenges as members of research teams.*
Collections	5. *Which subject areas of print monographs are the most frequently used at the NIH Library? Method: a baseline retrospective cohort study of monographic collection use by examining 2006 circulation and interlibrary loan borrowing records in the Library's integrated library system.*

Table 2. EBLIP questions categorized by Crumley and Koufogiannakis' practice domains.

process, participants broke into small groups to develop their research questions. After the training, teams worked with the instructor to further refine their questions and explore possible methods. The instructor was available to these groups by e-mail, phone and in person in the months following the class to respond to questions and monitor progress. As all the research studies progressed, the teams maintained contact with the instructor and also conferred with other experienced researchers on staff who volunteered to serve as mentors.

In contrast to the quantitative studies that are very common in the NIH clinical research setting, EBLIP questions best answered using qualitative research methods raised a level of discomfort among staff participants. We decided to provide in-depth training in qualitative methods for those team members currently planning qualitative studies as well as for others who might use these methods in future studies. The result was a formal, university-affiliated

graduate course in qualitative methods with both on-site and distance learning components. The course included lectures; extensive readings; opportunities to practise qualitative methods; assignments to design and implement practical studies; and assistance and mentoring with study design and data collection, organization, and analysis. In addition, for complex quantitative studies, statistical support was available from course instructors and other experienced researchers at NIH.

Conclusion

Employers can and should do more than enable and encourage their staff to engage in evidence based practice. By proactively providing a supportive framework for EBLIP practice, library leadership can successfully engage staff in EBLIP thinking and small research studies. It is to the benefit of the employer as much as the employee that valid answers are found to the questions that arise in practice.

Is the NIH Library's EBLIP initiative sustainable? Will the team study results make a difference in practice? Based on our experience, we believe library staff teams can be successful with EBLIP research projects. Those teams that have completed their studies can point to findings that support their current practice and/or suggest new directions. By implementing a process to 1) identify existing skills, 2) understand motivational factors and respond to these, and 3) provide a supportive training and mentoring environment, the NIH Library experience is an example of a staff development program designed to provide practitioners with the knowledge, skills and attitudes to design and conduct a variety of quantitative and qualitative research studies that will answer "librarianship questions".

Our experience indicates that librarians with some training in the research process and ongoing mentoring can indeed design and conduct studies to learn valuable information that will help them introduce new services; improve collection development; and better understand the information-seeking behavior and customer services needs of users in general as well as specific target groups so the right information reaches the right person at the right time.

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