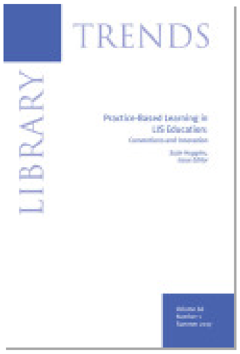
"I Didn't Learn That in Library School"—Experiential Learning in Consumer Health for Future Public Librarians



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“I Didn’t Learn That in Library School”—Experiential Learning in Consumer Health for Future Public Librarians

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Abstract

Interest in consumer health information has blossomed since the mid-twentieth century. Consumers have become much more involved in decisions related to their health care and in seeking information about health issues. Public libraries, as community organizations, have a long history of facilitating access to health information, and currently offer important resources such as computers and free Wi-Fi that facilitate access, especially for people who do not have computers or Internet at home. With the ubiquity and ease of access to online health information, however, various challenges arise. Consumers often lack the knowledge or ability to find information or to evaluate critically the information they find. Many public librarians also often have limited proficiency or experience in helping patrons with their health-related information needs. Although there are various opportunities for public librarians to obtain training in health information, library and information science students considering public librarianship are often not aware that there is a benefit, as well as a responsibility, to becoming knowledgeable about health information. This article discusses issues related to health information access as it relates to public libraries, and suggests practice-based options that could be useful for students preparing for careers in public libraries.

Introduction

In an interview with a public librarian about her experiences fielding health information questions in her library, she stated, “That was one thing I left library school not feeling that well equipped to do . . . I had an awesome reference class, my professor was amazing, and I left that class feeling capable of answering a number of questions . . . but health infor-

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mation is dicey stuff." That interview, among others, in a study of public library staff perspectives on facilitating access to consumer health information (Rubenstein 2016a, 2016b), inspired an early conceptualization about how this type of situation could be remedied.

Interest in consumer health information has blossomed since the mid-twentieth century. Consumers have become much more involved in decisions related to their health care and in seeking information about health issues. Among the 81 percent of adults in the United States who use the Internet, 72 percent seek information on diseases, treatments, medications, losing weight, and other health concerns (Fox 2011; Fox and Duggan 2013). When seeking information, consumers typically start with search engines such as Google and Yahoo, or sites devoted to medical information, such as WebMD and MayoClinic.com (Fiksdal et al. 2014; Fox 2011; Fox and Duggan 2013). Consumers also look for personal stories about illness from blogs, personal websites, support groups, and social network sites (Fox 2011). Often, these searches occur at public libraries, due to free Wi-Fi and computers.

A recent report from the Pew Research Center notes that Americans are enthusiastic about their local libraries, believing they contribute important services, including guiding people to reliable information (Horrigan 2016). Various studies have found that public libraries serve as important hubs for health information, whether through print materials or online resources (Becker et al. 2010; Zickuhr, Rainie, and Purcell 2013). Many patrons are without computers or Internet at home, meaning that they are unable to access this information easily from places other than libraries (Zionts et al. 2010). Smith (2006, 98) described public libraries as "the true front lines of medical librarianship today." Yet despite the fact that libraries are often a vital source of health information for many, public librarians often have limited proficiency or experience in helping patrons with their health-information-related needs (Flaherty and Luther 2011; Yi and You 2015).

Library and information science students considering public librarianship are often not aware that there is a benefit, as well as a responsibility, to becoming knowledgeable about health information. Smith (2006, 98) noted that the Internet has "democratized" access to health information, meaning that people can find health information even though they may not possess the skills to assess the reliability of its source or accuracy of the content. Although public libraries serve many patrons seeking access to health information, teaching students how to field such questions is generally not a significant part of the curriculum. Various options exist for training once librarians have received their degrees (Flaherty 2015), but there are few cohesive recommendations as to how students might become more prepared to facilitate health information in the public library.

Motivation for this article arose from a qualitative study that included interviews of thirty-eight public library staff (branch managers, librarians, and library assistants) in eighteen libraries in Oklahoma to learn about their perspectives and experiences related to health information and health literacy (Rubenstein 2016a, 2016b). At the time of the study, one system had offered employees an opportunity to participate in a Consumer Health Information Specialist (CHIS) certification program offered through the Medical Library Association (MLA) and taught locally by staff from the National Network of Libraries of Medicine-South Central Region (NN/LM) and University of Oklahoma Health Sciences Center Library (OUHSC). The MLA has been offering CHIS training to librarians since the early 2000s in recognition of increased consumer interest in participating in their own health care decisions, and the need for better preparation for those assisting them in finding medical resources (Huber and Gillaspy 2011; Spatz 2014; Zionts et al. 2009). The results of the study indicated discrepancies among personnel in terms of their knowledge and comfort in helping patrons with health information questions and, not unexpectedly, those who had participated in certification classes were more knowledgeable about health information and health issues in general and in Oklahoma (Rubenstein 2016a, 2016b). Staff who had received training expressed increased confidence about their skills in finding information and in interacting with their patrons. The gap that was revealed, however, was that library and information science (LIS) students interested in public librarianship usually were not well prepared to facilitate health information interactions once employed.

Coursework related to health/medical information or health informatics is generally not directed at students who plan on becoming public librarians. Although some LIS schools offer concentrations in health information, others have one or two courses that are often not included among recommended courses for public librarianship. Further, while public libraries in some areas of the country do employ designated librarians or community health information personnel trained in fielding health questions, these specialists are much less common than might be expected, given the percentages of patrons seeking this information in libraries (Flaherty and Grier 2014). Developing consumer health information classes or including consumer health in medical information courses aimed at students interested in medical librarianship would partially address the need for more targeted information. However, in addition to academic coursework, having experiential training with consumer health information would offer students a foundation in handling actual situations and implementing strategies. Drawing on the aforementioned study, reviewed literature, and a questionnaire distributed to practicing librarians for the purpose of feedback on this topic, this article discusses issues related to health information access as it relates to public libraries, and suggests practice-based options that could be useful for students preparing for careers in public libraries.

A Brief History of Public Libraries and Health Information

In various ways, public libraries have offered health information to their communities for many years (Huber and Gillaspy 2011; Rubenstein 2012; Smith 2015). Flaherty (2015) noted that in 1902, Melvil Dewey, then director of the New York State Library, was in favor of state libraries serving as resources for health providers. The early 1900s saw librarians considering their role as providers of health guidance to families, collecting materials related to childcare, diet, and nutrition. During the 1920s, public libraries and health organizations in the United States teamed up to provide health information and education, and *Library Journal* began publishing lists of health information resources (Rubenstein 2012). As these efforts increased, there was pushback from medical librarians, who considered public libraries to be inappropriate as health information providers (Anderson 1933; Farrow 1934). Despite this, public librarians continued their work in this arena.

Toward the mid-twentieth century, public libraries began to be seen as logical custodians and purveyors of health information. The Public Health Service began sending them bulletins, monographs, and other resources related to public health, and social service organizations welcomed their ability to increase the public's awareness of health issues (National Council on Family Relations 1948; Rubenstein 2012; Timmons and Caraway 1947). Baltimore's Enoch Pratt Free Library hired subject specialists to interact with the public about topics such as child welfare, education, and psychology, and library science educators, as well as librarians, called for more attention to health information training for students (Lamson 1949; Wallis 1949). Public libraries began taking on more significant roles as facilitators of health information, with some creating staffed health information areas, offering lectures, and providing community outreach specifically related to health in recognition of their responsibility to educate consumers (Hopkins 1955; Radmacher 1963; Slagle 1958).

Another way public libraries increased their involvement with health information was through implementation of information and referral services, designed to assist patrons in finding various social services, including healthcare (Childers 1984). Many of these initiatives progressed through the 1970s and were also the result of coordinated efforts by health organizations, libraries, and other social service agencies.

As interest in consumer health grew through the latter part of the twentieth century, patients began to prefer to be participants in their own health care, working with medical providers to make decisions rather than just following their doctors' orders (Hollander 1996). Huber and Gillaspy (2011) attributed this growth in part to the evolution of support groups, often founded by women with breast cancer desiring more information, support, and funding for research, as well as gay men with AIDS looking for advocacy at a time when little was known about the disease. Due to the nature of consumer interest, public and health sciences libraries focused on making health information more available to the general population (Pifalo et al. 1997). In addition, doctors became more subject to time constraints when working with patients, which often meant that patients had to learn more about their conditions than they had in the past (Pifalo et al. 1997). Gillaspy (2005) reported that health information requests in public libraries comprised roughly 20 percent of total reference inquiries during the late 1990s. As a result, public libraries struggled with becoming more adept at providing assistance to patrons with these queries. Although library information and referral services collaborated with local and state agencies along with hospitals to ensure that patrons knew which organizations could address their needs (Pifalo et al. 1997), in terms of being qualified to offer more than referral information, public librarians needed to learn more about health information materials, how to keep up with continual change in this information arena, and how to work with consumers.

Finding Health Information

Public libraries are among the most trusted institutions in our society (Gillaspy 2005; Kwon and Kim 2009). Most Americans are enthusiastic about libraries and value having them in their communities, frequently using them to access health information (Huber and Gillaspy 2011; Zickuhr et al. 2013). Based on a survey of close to 50,000 individuals and 319 interviews, Becker et al. (2010) found that 37 percent of library users, including 54 percent of seniors living in poverty, used their libraries' computers and Internet to find health information for themselves or for family and friends. Included among these searches were queries regarding medical treatment, caregivers, diet, medications, and health insurance. Becker et al. (2010) indicated that obtaining help from librarians resulted in individuals making important decisions such as buying health insurance and scheduling physician appointments. At the same time, popular television shows and Internet sites entice many consumers toward information that is fraudulent, with consumers lacking the knowledge or ability to critically evaluate what they find (Zionts et al. 2010). With health information so easily accessible at the touch of a few fingers, both the public and public librarians' ability to sift through popular information, to be aware of commercial interests, and to identify reliable information becomes even more crucial.

Librarians strive to interact meaningfully and discreetly with patrons to elicit the information they seek (Ross, Nilsen, and Radford 2009). Yet many public librarians encounter challenges when assisting patrons with health questions. Librarians, themselves, do not necessarily know how to discern between meaningful and questionable information (Flaherty 2013; Keselman, Smith, and Hundal 2014). Multiple studies have found gaps in knowledge about health information resources and the ability to use medical databases (Flaherty and Luther 2011; Smith 2011; Yi and You 2015). For example, Flaherty and Luther (2011) found that library staff in upstate New York were unable to provide trustworthy information about vaccinations, at times relying on popular resources that contradicted scientific research. Another study, of embedded consumer health librarians in Delaware, indicated that approximately two-thirds of queries about vaccinations were directed to reliable information (Flaherty and Grier 2014), which contrasted with Flaherty and Luther's (2011) study of New York libraries, where only half of the queries were answered appropriately. Flaherty and Luther attributed this discrepancy to Delaware having a statewide initiative that included a collaboration between Delaware's Academy of Medicine and the state library association, whereas New York had no such program. The researchers found that in the Delaware study, the ability to provide authoritative information was more likely to occur with staff having MLIS degrees, although this was not evident in the New York study. In both studies, when untrustworthy information was offered, it was almost exclusively through books rather than online resources. Flaherty and Luther (2011) found that on average, health-related books in library collections had been published before 2004, while those used to answer questions were even older. Because medical information becomes dated very quickly, books are not the best resources to use. However, librarians have noted that patrons often choose to use print materials either because they want to take them home or because they are uncomfortable using digital resources (Flaherty 2013; Rubenstein 2016a, 2016b; Yi 2015).

Smith (2011) interviewed 102 professional and paraprofessional library staff in Wisconsin to determine the extent of their knowledge of health information resources as well as "the NLM [National Library of Medicine], the Regional Medical Library (RML) that exists to serve them, or the National Network of Libraries of Medicine that serves the needs of the RMLs" (2011, 153). Of those respondents, 27 percent of professionals and 10 percent of paraprofessionals had received training to various degrees in consumer health information. Few participants had heard of the National Network of Libraries of Medicine, and even though there was recognition of the National Library of Medicine, interviewees were not quite sure about its function. When asked about their knowledge of MedlinePlus, a consumer-oriented database, they were unsure of the differences between that resource and MEDLINE, which is an academic biomedical and life sciences database. Smith pointed to the urgent need for public library staff to obtain training that increases both their knowledge of health resources and their ability to use them if they are to effectively help their communities navigate health questions.

During the 2003 SARS outbreak in Toronto, Canada, Harris, Wathen, and Chan (2005) examined how well public libraries throughout the province of Ontario fielded questions from the public about the disease. Of the sixty-nine libraries they were able to contact by phone, only 26 percent asked clarifying questions to elicit more information. Harris, Wathen, and Chan also noted that 56 percent of those responding referred callers to the Internet, seemingly indicating that the Internet was a resource separate from the library and beyond the library's purview. Thirteen percent of respondents attempted to give what Harris, Wathen, and Chan termed "quasi-medical advice" (2005, 151). Other studies by Baker and Manbeck (2002) and Linnan et al. (2004) during the same time period found librarians encountering problems with reference interviews, medical terminology and resources, ethics, and confidentiality; yet even ten years later, Luo and Park (2013) noted that the needs related to training public librarians in consumer health information were almost the same.

Library staff have their own concerns about providing health information. In interviews with twenty reference librarians and forty patrons, Yi and You (2015) sought to understand differences between each group's experiences providing and seeking health information. Librarians readily admitted that they did not consider themselves to be particularly health literate, citing lack of knowledge and inability to assess health resources. They described apprehension about working with patrons who were confused, emotional, or had sensitive health questions, and were unsure how to communicate with them. A survey of 460 public librarians revealed similar issues, with 61.8 percent of respondents describing problems understanding patron queries and 32.4 percent expressing unfamiliarity with medical resources that could help them in addressing questions (Luo and Park, 2013). Further challenges included not knowing how to search for information (21.9 percent) and grappling with patron emotions (21.6 percent). Many of the respondents stated that they had no specialized health training and were unaware of where or how to access such training. They also expressed a desire for more education that would address specific populations such as immigrants, the elderly, and low-income patrons. Other research has revealed similar findings: many public librarians feel inadequate about their ability to navigate medical information (Ross, Nilsen, and Radford 2009; Smith, Hundal, and Keselman 2014).

Even when librarians are adept at navigating health information, they struggle with how to work with patrons who insist on using resources that proffer miracle cures and other suspicious remedies that have no basis in scientific evidence (Keane 2009; Thompson and Thompson 2007). Books and websites that describe such treatments are often well known and popular among the public, yet librarians are in a position where they cannot give advice or judge patron requests, including requests for information that might be dubious (Flaherty 2016; Thompson and Thompson 2007). However, librarians also have a responsibility to guide patrons to reliable information, putting them in an awkward position if a patron does not want this information.

Studies have also highlighted consumer concerns about finding health information. Many patrons perform their own online searches without help from library staff, but when asked about their experiences, they describe several challenges, such as difficulty with medical terminology and lack of knowledge about databases and how to use them (Harris and Wathen 2007; Yi and You 2015). Although they often prefer books, they have concerns about the age of many print resources (Harris and Wathen 2007; Yi and You 2015). Even if patrons are comfortable using computers, having them located in areas of the library that lack privacy make them less attractive for research. Patrons are also wary about discussing medical issues with librarians due to the sensitivity of their questions and a lack of confidence in librarians' knowledge of health information (Yi 2015; Yi and You 2015). Further, patrons are frequently unaware of legal and ethical implications in that librarians can refer people to resources but cannot give advice, which can add to the discomfort of both parties (Ennis and Mitchell 2010; National Network of Libraries of Medicine 2016).

Health Information Practice-Based Learning

On the one hand, public libraries have been involved with providing health information in various forms for many years. On the other hand, public librarians often feel uncomfortable fielding health questions due to their uncertainty about how to work with patrons in both reference interviews and in locating resources. There have been many calls for public librarians to obtain appropriate training, and classes are available through the Medical Library Association's Consumer Health Information Specialist certification (Flaherty 2016; Smith, Hundal, and Keselman 2014). Flaherty (2016) has also noted that public librarians can learn more about the skills and information needed by taking online courses offered by the Online Computer Library Center (OCLC) and regional NN/LMs, resources on MedlinePlus provided by the NLM, and through collaborative relationships among medical libraries, public libraries, and other health-related organizations. She also encouraged more inclusion of health topics within various courses; for example, reference classes could incorporate consumer health information and reference interviews, and information organization classes could introduce MeSH (Medical Subject Headings) (Flaherty 2015). Further, programs and advisors could place more emphasis on the need to obtain more skill with health information. What seems to be rarely discussed is how future public librarians might prepare otherwise, through experiential learning opportunities while they are working toward their degrees.

Field experiences produce LIS students who are highly competitive in the job market. Obtaining hands-on skills offers more than knowledge building; it provides practice that allows students to become adept at various skills, which evolve into professionalism and leadership (Brzozowski, Homenda, and Roy 2012; Ferrer-Minent and Sobel 2011). Practice-based learning offers students an opportunity to interact with professionals, build networks, and apply classroom information to real-world settings (Bird, Chu, and Oguz 2016; Hoffmann and Berg 2014). Further, experiential learning generally includes student reflections on their participation, giving them the opportunity to recount and examine how such experiences have enhanced their understanding of the field (Bird, Chu, and Oguz 2015; Brzozowski, Homenda, and Roy 2012).

Although dialogue devoted to LIS students' participating in field experiences addresses their value generally, it is difficult to find references to health-related internships, practicums, or other practice-based learning for LIS students interested in public libraries. Consumer health is not uppermost in students' minds despite evidence of the need (Hessler 2015; Smith 2006; Yi 2015; Yi and You 2015). For students wishing to become medical librarians, the path is much clearer. They know that health information field experiences will enhance their skills and increase their ability to obtain employment in their chosen occupation (Detlefsen 2002; Homan and McGowan 2002). Further, many medical library directors as well as the MLA recommend that students wishing to become medical librarians include internships or practicums as part of their coursework (Giuse et al. 1997). For example, in the area of hospital librarianship, practitioners have suggested that hospital librarians, especially those approaching retirement, consider mentoring future medical librarians through internships as a way to ensure that newcomers to the field are prepared for this type of setting (Hoist 2009; Werner and Kenefick 2013).

If there are few recommendations for future public librarians to gain experience with health information, it is very unlikely that they will obtain it deliberately, not because they are uninterested, but because they have not been exposed to the value of doing so. This was confirmed by a questionnaire sent to librarians for feedback on this topic. Several librarians who responded to the questionnaire about their own experiences with health information prior to obtaining their degrees explained that they became interested in the topic only after being exposed to it through student assistantships in academic or medical libraries. One librarian who had worked as a graduate assistant in an academic library with an emphasis on health information stated, "I did not accept this assistantship based on the job being in a health-related environment, but I developed a passion for health information by working [there]." This librarian appreciated having the opportunity to learn about and use medical databases. Another stated that she had primarily taken an assistantship with a medical library for the purpose of paying for school; it had not been something that she purposefully pursued. She noted, "I would later pick up sub jobs covering at various hospital libraries in the . . . area; these were again totally motivated by the need to earn money." Currently working in a public library as a reference manager, she continued, “the skills I have learned are useful to have in reserve. I enjoy helping customers find medical information and have a good working knowledge of resources for both customers and professionals.” A branch manager who had worked at a public library while getting her master’s degree described the experience:

> I would work with customers to show them health-related databases offered by the [library]. I also received proper training . . . on how to conduct a reference interview on the topic of health, and when to draw the line with customer assistance (not offering medical advice, but rather connecting people with resources).

She further emphasized that knowing how to facilitate health information questions has the potential to greatly impact patrons’ lives.

Many LIS students look for practical experience related to their career goals, whether it is through practicums and internships or by working or volunteering at libraries. Those who do acquire health information experience may do so almost accidentally, not expecting to become versed in health information, nor aware that they might enjoy it. However, purposefully incorporating some elements of health information into practice-based learning experiences for future public librarians would begin to enhance awareness of the need for this knowledge and boost the capabilities of novice librarians (Flaherty 2015). Some LIS schools require internships or practicums in their programs, although many do not. Whether these experiences are mandated, advisers and students can craft together practice-based learning opportunities that incorporate health information, designing them based on one or more domains that are integral to providing consumer health information in public libraries. Some of these domains include familiarity with the local community’s health information needs and interests, the ability to navigate reference interviews, building partnerships with health-related organizations, developing collections and weeding practices, outreach, and awareness of ethical and legal issues related to consumer health reference (Bibel 2016; Kouame, Harris, and Murray 2005; Luo and Park 2013).

Students and faculty already participate in various types of practice-based learning activities depending on interests and needs, designating them as field experiences, internships, practicums, service learning, and volunteering (Becker 2000; Hoffman and Berg 2014). These include short-term projects such as weeding collections, observation, and site visits, or longer-term activities occurring during a summer or as part of a semester-long class. In all instances, students engage directly with libraries and work with their staff to enhance existing services or create new ones. In the case of future public librarians, sites such as medical libraries, consumer health libraries, public libraries, and possibly even community organizations with a health information focus, would offer students opportunities to develop their knowledge and experience. At the end of their practice-based learning, students would reflect on and evaluate their experiences (Ball 2008; Bird and Crumpton 2014) as they relate to their professional goals, consumer health, and public librarianship.

Various configurations have the potential to fill the consumer health information gap among future public librarians, but, to the author's knowledge, have not been formally developed as part of an LIS program. While most LIS schools encourage or require internships or other experiential learning, none specifically address health information training for students planning on becoming public librarians. However, students who decide that they would like this experience can plan accordingly by incorporating such experiences into their practice-based learning. Since field experiences generally take place after students have completed a substantial amount of coursework, ideally at least one class would be focused on health information, or, as suggested by Flaherty (2015), several classes would introduce medical information as it relates to the class focus. If a student has not learned how to use medical databases, part of the field experience could consist of doing so under the supervision of an experienced librarian. Semester-long field experiences could incorporate specific activities such as developing a health information program that includes medical database instruction for patrons or a collaborative effort with a health-related organization to organize a health fair, which would be interspersed with other library responsibilities. Incorporating service learning within a semester-long class would also offer opportunities to work with libraries and patrons to fulfill the health information needs of various constituents. Shorter field experiences could encompass single projects over a few weeks or weekend. Other valuable activities might include shadowing librarians, getting involved in health literacy initiatives, and developing subject guides and tutorials. In essence, the structure of health-related field experiences would be similar to other practice-based learning, but would be designed to include a consumer health component based on evidence of health information seeking and needs.

Conclusion

This article was inspired by studies that have illuminated inconsistencies among public librarians in their abilities and comfort in providing health information. Overall, people appreciate libraries and recognize their significance to a vital society; beyond lending books, they offer comfortable places to read and study, as well as a wide array of programs such as technology classes and story times (Becker et al. 2010; Horrigan 2016). As an institution, public libraries have been working with communities in various capacities to facilitate access to consumer health information for many years, and more than a third of library users avail themselves of library computers and free Wi-Fi to make use of health resources (Becker et al. 2010; Rubenstein 2012; Smith 2015). But easy accessibility and an abundance of health information bring a number of challenges. Consumers often do not know how to differentiate between reliable and inaccurate information, nor do they know how to search for reputable sources. They are more likely to use search engines such as Google and Yahoo than medical databases, even those designed specifically for the general public, because they may not know they exist or how to use them. However, even if consumers request assistance from librarians, they are likely to encounter difficulties because many public librarians lack the necessary skills to be able to help them (Flaherty and Luther 2011; Luo and Park 2013; Smith 2011). These librarians feel apprehensive about interacting with patrons requesting health information, and they have difficulties knowing how to find appropriate materials.

Although several opportunities exist for practicing public librarians to obtain health information training (Flaherty 2015), there are few options recommended for LIS students in advance of earning their master's degrees. The idea of patrons seeking health information in the public library is one that may not be familiar to students, yet the role of public libraries in this arena continues to grow, especially for individuals who have no other access to online information. Because of libraries' ongoing involvement with health information, it is crucial for future public librarians to engage in health-related practice-based education that enhances their skills using medical databases, addresses interacting with consumers on finding sensitive medical information, and increases their understanding of consumer health issues with a goal toward developing programs and services that benefit their communities.

References

Anderson, I. T. 1933. "Library Hours: Open to Public: Fining System." *Bulletin of the Medical Library Association* 22 (1): 31–33.

Baker, L. M., and V. Manbeck. 2002. *Consumer Health Information for Public Librarians.* Lanham, MD: Scarecrow Press.

Ball, M. A. 2008. "Practicums and Service Learning in LIS Education." *Journal of Education for Library and Information Science* 49 (1): 70–82.

Becker, N. J. 2000. "Service Learning in the Curriculum: Preparing LIS Students for the Next Millennium." *Journal of Education for Library and Information Science* 41 (4): 285–93.

Becker, S., M. D. Crandall, K. E. Fisher, B. Kinney, C. Landry, and A. Rocha. 2010. *Opportunity for All: How the American Public Benefits from Internet Access at U.S. Libraries* (IMLS-2010-RES-01). Washington, DC: Institute of Museum and Library Studies. https://www.imls.gov/publications/opportunity-all-how-american-public-benefits-internet-access-us-libraries.

Bibel, B. M. 2016. "Consumer Health Information Service in the Public Library." In *Consumer Health Information Programs and Services*, edited by M. S. Wood, 51–65. Lanham, MD: Rowman and Littlefield.

Bird, N. J., C. M. Chu, and F. Oguz. 2016. "Internship in LIS Education." *IFLA Journal* 41 (4): 298–307.

Bird, N. J., and M.A. Crumpton. 2014. "Real Learning Connections: Questioning the Learner in the LIS Internship." *Journal of Education for Library and Information Science* 55 (2): 89–99.

Brzozowski, B., N. Homenda, and L. Roy. 2012. "The Value of Service Learning Projects in Preparing LIS Students for Public Services Careers in Public Libraries." *Reference Librarian* 53: 24–40.

Childers, T. 1984. *Information and Referral: Public Libraries.* Norwood, NJ: Ablex.

Detlefsen, E. G. 2002. “The Education of Informationists, from the Perspective of a Library and Information Sciences Educator.” *Journal of the Medical Library Association* 90 (1): 59–67.

Ennis, L.A., and N. Mitchell. 2010. *The Accidental Health Sciences Librarian.* Medford, NJ: Information Today.

Farrow, M. S. 1934. “Closed to the Public.” *Bulletin of the Medical Library Association* 22 (4): 225–27.

Ferrer-Vinent, I. J., and K. Sobel. 2011. “A Study of Master of Library Science Candidates and Librarians at a Practicum Site Library.” *New Library World* 112 (7/8): 365–76.

Fiksdal, A. S., A. S. Jadhav, C. Cocos, L. A. Nelson, J. Pathak, and J.B. McCormick. 2014. “Evaluating the Process of Online Health Information Searching: A Qualitative Approach to Exploring Consumer Perspectives.” *Journal of Medical Internet Research* 16 (10): e224.

Flaherty, M. G. 2013. “Consumer Health Information Provision in Rural Public Libraries: A Comparison of Two Library Systems.” *Library Quarterly: Information, Community, Policy* 83 (2): 155–65.

———. 2015. “Health Information Resource Provision in the Public Library Setting.” In *Meeting Health Information Needs Outside of Healthcare,* edited by C. A. Smith and A. Keselman, 97–116. Waltham, MA: Chandos.

———. 2016. “From Google to MedlinePlus: The Wide Range of Authoritative Health Information Provision in Public Libraries.” *Library and Information Science Research* 38: 101–7.

Flaherty, M. G., and P. L. Grier Jr. 2014. “Statewide Initiative to Embed Consumer Health Librarians in Public Libraries: A Case Study.” *Public Library Quarterly* 33 (4): 296–303.

Flaherty, M. G., and M. E. Luther. 2011. “A Pilot Study of Health Information Resource Use in Rural Public Libraries in Upstate New York.” *Public Library Quarterly* 30 (2): 117–31.

Fox, S. 2011. *The Social Life of Health Information.* 2011. Washington, D. C.: Pew Research Center. http://pewinternet.org/Reports/2011/Social-Life-of-Health-Info.aspx.

Fox, S., and M. Duggan. 2013. *Health Online 2013.* Washington, D. C.: Pew Research Center. http://www.pewinternet.org/2013/01/15/health-online-2013/.

Gillaspy, M. L. 2005. “Factors Affecting the Provision of Consumer Health Information in Public Libraries: The Last Five Years.” *Library Trends* 53 (3): 480–95.

Giuse, N. B., J. T., Huber, S. R. Kafantaris, D.A. Guise, M. D. Miller, and W. W. Stead. 1997. “Preparing Librarians to Meet the Challenges of Today’s Health Care Environment.” *Journal of the American Informatics Association* 4 (1): 57–67.

Harris, R., and C. N. Wathen. 2007. “‘I Try to Take Care of It Myself.’ How Rural Women Search for Health Information.” *Qualitative Health Research* 17 (5): 639–51.

Harris, R., C. N. Wathen, and D. Chan. 2005. “Public Library Responses to a Consumer Health Inquiry in a Public Health Crisis.” *Reference and User Services Quarterly* 45 (2): 147–54.

Hessler, K. E. 2015. “Health Literacy and Law: Empowering Libraries to Improve Access to Consumer Health Information and ACA Compliance.” *Serials Librarian* 69: 334–46.

Hoffman, K., and S. Berg. 2014. “‘You Can’t Learn It in School’: Field Experiences and Their Contributions to Education and Professional Identity.” *Canadian Journal of Information and Library Science* 38 (3): 220–38.

Hoist, R., C. J., Funk, H. S. Adams, M. Bandy, C. M. Boss, B. Hill, C. B. Joseph, and R. K. Lett. 2009. “Vital Pathways for Hospital Librarians: Present and Future Roles.” *Journal of the Medical Library Association* 97 (4): 285–92.

Hollander, S. 1996. “Consumer Health Information Partnerships: The Health Science Library and Multitype Library and Multitype Library System.” *Bulletin of the Medical Library Association* 84 (2): 247–52.

Homan, J. M., and J. J. McGowan. 2002. “The Medical Library Association: Promoting New Roles for Health Information Professionals.” *Journal of the Medical Library Association* 90 (1): 80–85.

Hopkins, B. C. 1955. “Family Living.” *Library Journal* 80 (15): 1759–60.

Horrigan, J. B. 2016. *Libraries 2016.* Washington, D.C.: Pew Research Center. http://www.pewinternet.org/2016/09/09/libraries-2016/.

Huber, J. T., and M. L. Gillaspy. 2011. “Knowledge/Power Transforming the Social Landscape: The Case of the Consumer Health Information Movement.” *Library Quarterly: Information, Community, Policy* 81 (4): 405–30.

Keane, E. 2009. “Evaluating Consumer Health Information: What Fails to Harm Us Makes Us Smarter.” *Reference Librarian* 50: 178–92.

Keselman, A., C. A. Smith, and S. Hundal. 2014. “Library Workers’ Personal Beliefs about Childhood Vaccination and Vaccination Information Provision." *Journal of the Medical Library Association* 102 (3): 205–10. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4076131/.

Kouame, G., M. Harris, and S. Murray. 2005. "Consumer Health Information from Both Sides of the Reference Desk." *Library Trends* 53 (3): 464–79.

Kwon, N., and K. Kim. 2009. "Who Goes to a Library for Cancer Information in the eHealth Era? A Secondary Data Analysis of the Health Information National Trends Survey (HINTS)." *Library and Information Science Research* 31: 192–200.

Lamson, H. D. 1949. "Why Ban Books on Personal Problems?" *Library Journal* 74 (2): 91–92.

Linnan, L., B. M. Wildemuth, C. Gollop, P. Hull, C. Silbajoris, and R. Monnig. 2004. "Public Librarians as a Resource for Promoting Health: Results from the Health for Everyone in Libraries Project (HELP) Librarian Survey." *Health Promotion Practice* 5 (2): 182–90.

Luo, L., and V. M. T. Park. 2013. "Preparing Public Librarians for Consumer Health Information Service: A Nation-Wide Study." *Library and Information Science Research* 35: 310–17.

National Council on Family Relations. 1948. "Education for Family Life in the Community." *Marriage and Family Living* 10 (2): 28–31.

National Network of Libraries of Medicine. 2016. "The Consumer Health Reference Interview and Ethical Issues." Accessed October 5. http://nnlm.gov/outreach/consumer/ethics.html.

Pifalo, V., S. Hollander, C. L. Henderson, P. DeSalvo, and G. P. Gill. 1997. "The Impact of Consumer Health Information Provided by Libraries: The Delaware Experience." *Bulletin of the Medical Library Association* 85 (1): 16–22.

Radmacher, M. 1963. "Questionable Medical Literature and the Library: A Symposium, the Public Library." *Bulleting of the Medical Library Association* 51 (4): 463–66.

Ross, C. S., K. Nilsen, and M. L. Radford. 2009. *Conducting the Reference Interview.* 2nd ed. New York: Neal Schuman.

Rubenstein, E. L. 2012. "From Social Hygiene to Consumer Health: Libraries, Health Information, and the American Public from the Late Nineteenth Century to the 1980s." *Library and Information History* 26 (3): 209–19.

———. 2016a. "Knowing How to Help: Providing Health Information in Public Libraries." *Journal of Consumer Health on the Internet* 20 (3): 114–29.

———. 2016b. "Health Information and Health Literacy: Public Library Practices, Challenges, and Opportunities." *Public Library Quarterly* 35 (1): 49–71.

Slagle, A. D. 1958. "Health Education—Another Service." *Library Journal* 83 (14): 118–19.

Smith, C. A. 2006. "I Am Not a Specialist: Why We All Need to Be Worrying about Medical Information." *Journal for Education for Library and Information Science* 47 (2): 96–105.

———. 2011. "'The Easier-to-Use Version': Public Librarian Awareness of Consumer Health Resources from National Library of Medicine." *Journal of Consumer Health on the Internet* 15 (2): 149–63.

——— 2015. "Medical Information for the Consumer before the World Wide Web." In *Meeting Health Information Needs Outside of Healthcare,* edited by C. A. Smith and A. Keselman, 41–76. Waltham, MA: Chandos.

Smith, C. A., S. Hundal, and A. Keselman, A. 2014. "Knowledge Gaps among Public Librarians Seeking Vaccination Information: A Qualitative Study." *Journal of Consumer Health on the Internet* 18 (1): 44–66.

Spatz, M. 2014. "History of Consumer and Patient Health Librarianship." In *The Medical Library Association Guide to Providing Consumer and Patient Health Information,* edited by M. Spatz, 1–10. Lanham, MD: Medical Library Association.

Thompson, S. H., and R. P. Thompson. 2007. "Skeptical Medical Reference: Helping Patrons Find Critical Resources for Consumer Health Issues." *Library Philosophy and Practice.* http://digitalcommons.unl.edu/libphilprac/136/.

Timmons, B. F., and I. Caraway. 1947. "The Role of the Library in Family Life Education." *Marriage and Family Living* 9 (1): 13–15, 21.

Wallis, C. L. 1949. "What! Medicine in Public Libraries?" *Library Journal* 74 (20): 1711, 1741–42.

Wathen, N., and R. Harris. 2007. "'If My Mother Was Alive I'd Probably Have Called Her': Women's Search for Health Information in Rural Canada." *Reference and User Services Quarterly* 47 (1): 67–79.

Werner, S., and C. Kenefick. 2013. "Pay It Forward: Ensuring the Future with Internships." *Journal of Hospital Librarianship* 1 (2): 179–83.

Yi, Y. J. 2015. “Consumer Health Information Behavior in Public Libraries: A Qualitative Study.” *Library Quarterly: Information, Community, Policy* 85 (1): 45–63.

Yi, Y. J., and S. You. 2015. “Understanding the Librarian/User Gap in Perception of Health Information Services: A Phenomenographic Approach.” *Journal of Librarianship and Information Science* 47 (4): 356–67.

Zickuhr, K., L. Rainie, K. Purcell, and M. Duggan. 2013. “How Americans Value Public Libraries in Their Communities.” http://libraries.pewinternet.org/2013/12/11/libraries-in-communities/.

Zionts, N. D., A. Apter, J. Kuchta, and P. K. Greenhouse. 2010. “Promoting Consumer Health Literacy: Creation of a Health Information Librarian Fellowship.” *Reference and User Services Quarterly* 49 (4): 350–59.

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