

## What do they want? a content analysis of Medical Library Association reference job announcements, 2000–2005\*†‡

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### INTRODUCTION

Content analysis of recruitment advertisements has often been used to examine trends in market demand for professionals and changes in a profession. Several studies examining recruitment advertisements posted in the *MLA News* demonstrated several trends and changes in medical librarianship from 1961 to 1996. The most well-studied factor was subject background or expertise, which was a continuing need in medical librarianship as evidenced by its inclusion in position advertisements [1–4]. Not surprisingly, the field placed increasing importance on technology-related

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 Supplemental Tables 1, 3, and 4; Figures 1 and 2; and an appendix are available with the online version of this journal.

characteristics: job advertisements posted from 1961 through 1970 in the *MLA News* showed a growing interest in library automation and computer-based reference service [5], while training and experience in online bibliographic searching were leading characteristics in advertisements from 1986 [2]. The greatest increase in demand for Internet-related skills appeared between 1993 and 1994 [6]. In general, job advertisements from 1961 through 1996 revealed online literature searching was an increasingly vital skill in conducting reference services in medical libraries [7]. Communication skills were also becoming increasingly important to prospective employers in the job advertisements posted in the *MLA News* from 1991 [3].

These studies, however, did not include a detailed analysis of the responsibilities and qualifications prospective employers were seeking for reference librarian positions in health sciences libraries, and no studies have included job postings published after 1997, a period during which the Internet grew in importance and PubMed/MEDLINE became freely available on the web [8].

Identifying responsibilities and qualifications expected by employers in the changing environment may help both prospective and practicing reference librarians in health sciences libraries understand the new roles and the areas they need to focus on for professional development and lifelong learning. Based on the assumptions that job announcements reflect prospective employers' expectations and mirror the changes in the profession [5], the authors analyzed job announcements for reference librarians posted in the *MLA News* from 2000 to 2005 to identify responsibilities and qualifications expected of reference librarians by prospective employers and to determine evolving roles of reference librarians in health sciences libraries.

### METHODOLOGY

The study used content analysis to identify the qualifications and duties prospective employers noted in reference librarian positions posted in the *MLA News* from 2000 to 2005. The study included reference position advertisements from the United States, Canada, and other countries. If wording or job descriptions varied slightly in repeated advertisements for the same position, they were treated as new entries and were retained. Word-for-word duplicate advertisements were eliminated from the analysis. When a brief advertisement referenced a longer position description available online, the full online versions of the job postings were analyzed if they were available at the time of the current study.

The criteria to select reference-related job advertisements for inclusion were based on the three basic functions of reference services specified by Bopp and Smith: the provision of information, instruction in the use of libraries and information sources, and guidance in the choice of library materials [9]. Job announce-

ments including any of these basic functions of reference services were included in the analysis. Multifunctional job advertisements were thus analyzed when they included components related to providing reference services (e.g., job advertisements with responsibilities for electronic services and library marketing, as well as reference services, were included).

## Coding

Ten sample reference job postings were selected for test coding. Both authors examined each posting and developed a coding guide for data entry. Advertisements were analyzed for seven variables: job postings by month and year, position title, type of library, required years of experience, minimum salary, geographic areas, and responsibilities and qualifications. Minimum salary was included due to the *MLA News* requirement that employers must provide salary information to post job advertisements. Foreign currencies were converted into US dollars based on the currency exchange rate at the time of data entry. Geographic areas for US postings were classified according to the geographic division by the National Network of Libraries of Medicine (NN/LM), while non-US postings were coded as "other."

After consulting a statistician, the authors identified thirteen subcategories and seventy-two variables to code reference librarians' responsibilities and qualifications (Appendix online). Both authors coded each of the entries for the full analysis. When a conflict arose, the authors discussed it and reached agreement based on the coding guide. A separate column was created to record elements that did not fit into the coding scheme specifications, for example, experience in research design, course work in adult education, excellent presentation skills, strong instructional design skills, and grant writing experience.

## RESULTS

Two hundred and forty-seven (40%) of 573 job announcements were reference-related positions. One hundred seventy-five (71%) advertisements were posted by academic health sciences libraries, 46 (19%) by special libraries, and 26 (11%) by hospital libraries. The number of reference job postings varied by year (Figure 1 online). Based on the minimum stated salary, the mean salary rose from \$35,012 in 2000 to \$42,156 in 2005 (Figure 2 online). Among the geographic regions, the Southeastern/Atlantic Region of NN/LM had the most job openings for reference librarian positions during these 6 years (Table 1 online).

The study revealed that 60% (n=147) of the reference job announcements were entry-level positions, requiring no previous work experience at the time of hire. Fifty-one (21%) reference job ads required 2 years of work experience. The average years of work experience required for a reference

**Table 2**  
Top five responsibilities requested in *MLA News* job advertisements\*

Responsibilities	Number	Percentage
Reference assistance	158	64
Teaching or instruction	149	60
Outreach activities	116	47
Technology	113	46
Leadership and management	91	37

\* Percentages do not total 100%, as the content of each job description could apply to multiple variables.

position was 1 year. Subject background was also frequently desired (50%; n=123).

Table 2 indicates the top 5 responsibilities that library administrators sought in reference librarians. User instruction was requested in 54% (n=134) of job announcements (Table 3 online). Forty percent (n=110) of job ads asked for research assistance or consultation (Table 3 online). Outreach responsibilities were most requested in 2000 (15%, n=38), and advertisements from academic libraries (37%, n=91) included the highest volume of requests for outreach. Experience or knowledge of basic writing, editing, and presentation-related technology was mentioned in 27% (n=67) of job descriptions (Table 3 online). Fourteen percent (n=35) of reference job ads included responsibility for managing the daily operation of the library or information services (Table 3 online). Seven percent (n=18) of job ads specified membership in the Medical Library Association's (MLA's) Academy of Health Information Professionals as preferable or desirable, and 72% (n=13) of them were from academic libraries.

Data analysis revealed the top 5 skills (Table 4 online) that prospective reference librarians should have to fulfill their responsibilities. Oral and written communication skills were asked for above all other skills. Online searching skills were requested in 25% (n=61) of the job ads (Table 4 online), and responsibilities for online database searching were included in 35% (n=87) of reference position advertisements.

## DISCUSSION

The study findings reflected several changes in the current practice of medical librarianship relative to the past. Compared to previous studies of job advertisements in the *MLA News* for 1977 to 1978 [1], 1986 [2], and 1991 [3], the current study found the highest percentage of job positions did not require work experience, which likely created more opportunities for new graduates. User instruction and teaching responsibilities have become more specific and dynamic. Advertisements also indicated that academic health sciences libraries expected prospective reference librarians to provide outreach services in the institutions. As end users have become more sophisticated in using online information resources to answer ready reference questions themselves, their demands of reference librarians have evolved to request more instructional and in-depth assistance [10] that might require considerably more time and

effort to fulfill [9]. Reference librarian positions, though not administrative by nature, also included some responsibility for managing the daily operation of information services. These characteristics were not examined in detail in previous studies.

The demand for communication skills observed in the current study was consistent with previous studies in which communication skills were seen to be increasingly important to prospective employers [2, 3]. Subject background and online searching skills were not sought as frequently by employers as they were in 1986 [2] and 1991 [3], but they were still mentioned in some of the job postings. Duties related to evidence-based medicine, virtual reference services, consumer health information services, and professional activities were not mentioned as frequently as the authors expected. It is possible that once a responsibility has become relatively commonplace, it is less frequently mentioned in job descriptions [11].

The identified qualifications and skill sets from the content analysis suggested that the essence of reference services was still to provide assistance to individuals seeking information. However, as the study results indicated, reference librarians' specific duties have been expanding and their roles have been evolving to adapt to the changing environment.

Inherent in the current study results was an interesting paradox: though many of the positions did not require previous experience, the advertisements included some skills usually acquired on the job, rather than qualifications that an inexperienced librarian would already possess. The advertisements, then, might provide an idealized representation of a candidate, indicating skills and experience one should be willing to develop to succeed in a given position.

This study had potential limitations. Although not the only medium used by library administrators in health sciences libraries to post vacant positions, the *MLA News* is a major publication for position vacancies in health sciences libraries in the United States and Canada [1, 6]. However, the word count-based fees for posting job ads in the *MLA News* has a potential influence on the job descriptions. In addition, the Internet and other communication mediums such as email distribution lists serve important functions in advertising open positions. Fourteen percent ( $n=34$ ) of the job advertisements examined in the current study contained only a few lines and stated that the full job description was posted on a website. Most ( $n=30$ ) of those websites were no longer accessible to consult when the study was done, so they provided limited information for the content analysis. Future research in reference job advertisements might be required to trace the possible changes in the profession by using both print and electronic data sources.

## CONCLUSIONS

Librarianship is a vibrant profession, constantly changing in response to new societal and technological development [9]. Reference librarians' roles can be

expected to continue to expand and evolve. The study reveals qualifications and skill sets sought for among reference librarian positions and demonstrates positive prospects for new graduates who are interested in becoming reference librarians in health sciences libraries. The ever-changing and specific nature of the expected qualifications and responsibilities from prospective employers presents challenges for both practicing and prospective health sciences librarians. The skills and qualifications outlined in the current study may be useful in guiding librarians' pursuit of the knowledge and skills essential to the effective delivery of reference services, and this study presents a snapshot of guidelines to direct current or prospective reference librarians in guiding skill development and understanding current requirements for these positions.

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