

10-2016

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## APA Citation

Linton, A. (2016). Emerging Roles for Librarians in the Medical School Curriculum and the Impact on Professional Identity. *Medical Reference Services Quarterly*, 35 (4). <http://dx.doi.org/10.1080/02763869.2016.1220758>

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# **Emerging Roles for Librarians in the Medical School Curriculum and the Impact on Professional Identity**

**Anne M. Linton**

**ABSTRACT.** This article discusses the impact on professional identity for health sciences librarians participating in the curriculum revision and development process. A qualitative survey, designed to examine the current roles, values, and self-identification of health sciences librarians involved in curricular revision, was conducted. The respondents discussed how they had participated in the planning, implementation, and rollout phases of revised curricula. They identified skills and values essential to successful participation and described the impact of expanded professional relationships on new identities as educators, change agents, and problem solvers. The study may add to the knowledge base of skills and attitudes needed for successful practice in these newly emerging roles.

**KEYWORDS.** Curriculum reform, health sciences librarians, medical school curriculum, professional identity, role of librarians, values

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## ***INTRODUCTION***

The profession of health sciences librarianship has undergone radical changes over the last twenty years as collections have become increasingly electronic and librarians are more deeply involved in the provision of instruction in information literacy, medical informatics, evidence-based research skills, and problem-based learning.<sup>1</sup> Librarians have often “left the building itself” to work within the programs and departments they support. Emerging and changed roles have resulted in a shift in professional identity with health sciences librarians moving toward a collaborative, consultative practice that is more closely aligned to user needs.<sup>2,3</sup>

This change in librarian professional roles has occurred at the same time that medical educators have been calling for reform in the undergraduate curriculum. In their 2010 book, *Educating Physicians*, Cooke, Irby, and O’Brien called for the integration of subject learning across disciplines and clinical practice and a greater emphasis on engaging students in the learning process through experiential and active learning.<sup>4</sup> Informal reports at professional meetings indicate that some librarians were asked to participate in the process of curriculum development and revision. A review of the literature revealed very little discussion of this participation in either the library science or medical education literature.

As library science educators and health sciences librarians seek to identify skills needed for evolving library practice, the formal documentation of new roles within curriculum development and revision will add to the knowledge base of emerging roles for librarians and begin to enumerate the corresponding skills, knowledge, and attitudes required for successful practice.

### ***LITERATURE REVIEW***

A review of the literature indicates that some academic and health sciences librarians have responded to new technologies and changing educational, research, and health care environments by reshaping professional identity.<sup>1,2,5-8</sup> They have uncoupled their identity from the library building itself and moved their services and expertise directly to the user, often in research and clinical settings, less frequently in the classroom and curriculum development.<sup>3,9-12</sup> However, they have not abandoned core professional values of information integrity, usability, and accessibility.<sup>13</sup> Instead, they have added technology, collaboration, instructional design, and teaching skills to their professional toolbox.<sup>14-17</sup> The most successful librarians have identified key professional skills that complement faculty expertise and exhibit openness to change and ambiguity, curiosity, adaptability, and willingness to innovate.<sup>3,18,19</sup> Like Kira's high-level managers, these librarians often operate in an environment where they can exercise initiative and autonomy over work-related tasks.<sup>20</sup> Graduate library science programs are responding to these developments by training librarians to be comfortable on interdisciplinary teams, flexible in changing conditions, and able to set personal and professional goals.<sup>10,21</sup>

Some of the literature reviewed identified specific instances, particularly in the areas of informatics, problem-based learning (PBL), and evidence-based medicine (EBM), where librarians have made targeted contributions to the undergraduate medical curriculum.<sup>22-26</sup> The review of the literature did not retrieve any articles specifically outlining the value of health sciences librarians in the development or revision of undergraduate medical curricula as a whole. Most articles that discuss new or emerging roles for health sciences librarians focus on clinical and research activities. However, it is possible that, as librarian roles continue to evolve toward greater interprofessional partnerships, their role in curricular development and revision will

expand. Recently, Mi published a case study that reviewed a librarian-led faculty learning community at a newly-established medical school. This case study enumerated multiple roles played by one individual that included librarian, educator, coordinator, and lifelong learner.<sup>27</sup>

The literature on professional identity informs the experience of health sciences librarians in an evolving environment. Like many other professionals, librarians are finding that career paths are increasingly ill-defined and that they must craft their own personal career journey in the workplace.<sup>28-30</sup> Those individuals who successfully transition to new or significantly redefined careers often exhibit high self-esteem, flexibility, and capacity for self-growth and learning.<sup>28, 29, 31</sup> They are able to adapt past professional and personal values and behaviors to a new environment.<sup>17, 20</sup> According to Corral, the original identity is not discarded but integrated with new skills sets, resulting in “stretched identities.”<sup>32</sup>

### ***DEFINING PROFESSIONAL IDENTITY***

Defining professional identity is a complex undertaking. Individuals operate within the social context of work, and they bring both professional and personal values to that context. These values in turn influence successful role transitions.<sup>33</sup> As Hoare states, “identity is constructed from within the person and culture in which it is forged.”<sup>34</sup> Freedman looks more closely at roles and role confusion, stating that roles—or what we actually do at work—illuminate professional identity. The ability to handle old, emerging, and new roles simultaneously can create tension both at work and within an individual’s sense of identity at work. The academic context in which an individual works—particularly, in terms of support for professional development and growth—may limit or enhance role transitions, further affecting professional identity.<sup>35</sup>

Reflecting on these complexities, individuals need to define professional identity both in terms of the professional values they have adopted and the extent to which they can apply these values to the roles they are asked to play. As roles change, successful transitions are dependent not only on the ability to apply traditional personal and professional values in new situations but on an individual's ability as an individual and within an institutional context to expand the identity embodied by those values.

In order to explore the relationship between curricular roles for health sciences librarians serving a school of medicine and their subsequent impact on professional identity, a survey was designed to answer the following question: In what ways has medical education curricular reform impacted the work role identity of health sciences librarians?

### ***METHODOLOGY***

To answer this question, a descriptive survey was distributed to the listserv of the Association of Academic Health Sciences Libraries (AAHSL) in August 2015 and to the listserv of the Medical Library Association (MedLib-l) in December 2015. The survey collected baseline demographic data but was otherwise composed of open-ended questions on professional values and roles as they relate to the experience of participating in the medical school curriculum development and revision process. To ensure validity, questions were narrowly focused around the research question. To avoid response bias, surveys were kept anonymous. Open-ended questions from the survey are highlighted in the Appendix. The survey was administered through the Qualtrics platform. Beyond initial questions on professional roles and values, the survey was designed to limit participation to those librarians who had actually been involved in curricular reform in a

school of medicine over the last ten years. The survey was piloted at two Washington, DC area academic health sciences libraries. Of the 141 individuals who started the survey, 44 completed it in its entirety. In addition to respondents who had not participated in curricular reform or who were at new medical schools who finished the open-ended portion of the survey at question 6, some individuals who began the survey may have failed to complete it due to its length and open-ended nature. Since most responses were text-based, the decision was made to analyze responses in NVivo 10 software. The researcher and a peer coder conducted the theme analysis and met to review discrepancies in coding. Word analysis, cluster and frequency tools were also used to check theme analysis.

## ***SURVEY RESPONSES***

### ***Demographics***

In terms of demographics data, most respondents who had actively participated in curricular development and revision worked in libraries that served more than just a medical school. A small number of respondents reported being part of their university's overall library system. Most librarians reported serving medical schools with entering classes of between 101 to 200 students. Responses were nearly evenly divided among public and private institutions. Number of librarians on staff ranged from 2 to 27! Over half of the respondents reported having some type of faculty status, and most respondents rated their home institution's support of professional development as average to high in terms of funding and supported time. Nearly everyone who

indicated active participation in curricular development and revision worked in libraries that had previously provided instruction in informatics, PBL, and/or EBM.

### **Current Professional Roles**

Survey respondents described a wide range of professional roles. As previously noted by Freedman,<sup>35</sup> they also reported playing multiple roles within their institutions. However, reference and instruction roles dominated. Only seven respondents indicated that they had roles in the technical services area. Nonetheless, when asked about participation in the roll-out process, over 50 percent of respondents indicated that librarians played a big role in providing technical and technological support to their schools.

Not surprisingly, as this questionnaire was initially distributed to the listserv of the Association of Academic Health Sciences Libraries (AAHSL), a large number (24) of respondents served in leadership roles ranging from library deans to directors to associate directors. Some of these individuals characterized their role as setting strategy and advocating for their respective libraries and librarians while ensuring that they and their librarians offered strong support to their institution's educational programs.

### ***Professional Values***

Many respondents indicated that they prized collaboration and service as professional values throughout the survey. When specifically asked about key professional values, respondents named a wide range of additional values including dependability, flexibility, inclusion,

innovation, knowledge and expertise, life-long learning, collegiality, and professionalism. Values generally fell into 3 themes: 1) health sciences librarians have strong personal values, 2) health sciences librarians have strong professional (or work-related) values, and 3) health sciences librarians value their work because it makes a difference in the quality of education and clinical care.

Strong personal values were embodied in responses which included words like dedication, open to change, creativity, initiative, trust, personable, integrity, honesty, and respect.

Strong professional values were embodied by one respondent, who categorized his or her professional commitment as, “Dedicated to providing high level of service. Equal access to information. Passionate about providing seamless, easy, direct methods for accessing the right information at the right time and place to meet faculty, student, and staff needs.”

Several respondents characterized their work as valuable because it contributes directly to the quality of education and clinical care. These librarians value the actual work they do because it is important and makes a difference. For example, one librarian stated,

“Librarianship is a helping profession. The ability to access, locate, and integrate information is fundamental to providing safe and effective patient care. Librarians have the responsibility to teach health care students to access and use information in an effective and ethical manner.”

### **Roles Played in Planning, Implementation, and Roll-out**

Health sciences librarians at standing schools who had undertaken curriculum reform during the last ten years were asked to reflect on their experiences in a more nuanced manner through three separate questions regarding their roles in 1) the curriculum development and review process (i.e., served on the curriculum committee, conducted research on relevant topics such as team-based learning, assisted in designing new classroom space), 2) curriculum implementation (i.e., provided resources for creating active learning materials, created instructional materials for the revised curriculum, taught faculty how to use new educational and/or instructional technologies), and 3) curriculum rollout (i.e., assisted or led the roll-out of new educational technologies, served as liaisons to learning communities or other student groups for clinical skills).

A number of themes emerged across all three phases of curriculum review and development: committee memberships, previous teaching experience, existing relationships within schools, and key skills. Not surprisingly, previous membership on school-wide committees triggered participation in the curriculum development and revision process for many health sciences librarians. Continued membership ensured participation in the implementation and roll-out phases. One respondent stated, “I believe the general favorable regard for the library, and our staff’s longstanding service on a variety of institutional committees and task forces, helped.”

Many respondents also reported prior experience teaching in areas such as informatics, EBM, and PBL. Participation in the curriculum development and review process provided an opportunity to advance and expand upon this teaching expertise. Similarly, many respondents saw participation in the curriculum development and review process both as a direct result of prior relationships and as an opportunity to build upon those relationships for additional collaborations. This experience held especially true in situations where existing communication

channels allowed librarians to advocate for themselves, to showcase the relevance of library resources and services, and to collaborate with faculty. One respondent reported that, “We actively advocated for our involvement in the changing curriculum committees. As a result of our work with these committees, our faculty have a better idea of what we can do for them.”

Key skills also contributed to successful participation in the curriculum development and revision process. Respondents reported on skills, ranging from searching expertise to educational knowledge as well as a number of personality traits, ranging from creativity to outgoingness. Many respondents focused both on the communication and collaboration skills highlighted above and on basic business skills such as setting priorities, planning, and problem solving. These varied skill sets were exemplified by a respondent who identified the following skills for success: “clear communication, willingness to collaborate and participate, not pushing an agenda/ looking for opportunities, adaptability, interest, key knowledge, not being too pedantic.”

### ***Planning***

Specifically, with regard to the curriculum development and review planning process, the majority of respondents equated participation with membership on a curriculum planning committee of some sort. Only one respondent indicated that he or she played no role in the planning process. For some respondents, prior involvement in the accreditation process promoted participation in the curriculum development and revision process. For example, one medical librarian noted that, “We are very involved with our school’s accreditation-driven curriculum revision, and they have expanded and reinforced our role in the medical school.”

Other respondents indicated that, because health sciences librarians serve faculty across all departments, they were able to view the curriculum as a whole and act as a neutral party during planning. As one respondent stated, he or she “also served as a bridge to network people together since serve a wide-variety of groups and could connect people across departments/disciplines.”

Some respondents reported an extensive collaborative role in planning, as the following statement illustrates.

“I serve on the curriculum committee and respond to and vote on major and minor additions and revisions to the curriculum. I also serve on project teams around new initiatives related to our curricula. I also am playing a lead role in the redesign of our facility that will be heavily used by medical students and instructors in the years ahead.”

Technical support for planning the new curriculum also featured prominently in responses. Librarians reported doing everything from researching new curricula to assisting faculty in learning about novel teaching techniques, and from redesigning space to enable team-based learning to identifying and acquiring new resources to support the curriculum. Other respondents reported creating elements of the new curriculum including threads related to evidence-based medicine (EBM), informatics, information literacy, and problem-based learning (PBL), as well as serving as mentors and co-leaders in the revised curriculum.

### ***Implementation***

The curriculum development and revision process is a continuum, and many of the tasks begun during planning and review carried over to implementation and remained a staple in the activities of librarians at these schools. Consequently, librarians continued to provide extensive technical support during the implementation phase, including the provision of access to electronic resources, support for active and team-based learning, creation of course guides, and assistance with educational technology.

Some librarians reported developing new services to support the implementation of the revised curriculum, and educational space design emerged as a facet of curriculum implementation in which librarians could become involved. One respondent stated that he or she “created online and interactive learning tools; developed and staffed an educational technology resources center in library; assisted faculty in integrating iPads and other mobile devices in curriculum.” The creation of an educational technology center within the library was just one example of the impact of the revised curriculum on space. Another library now hosts an instructional technology design center. Another librarian reported that,

“We actively campaigned for the first floor of the library to become a TBL/Active Learning Center. This entailed undertaking a major renovation of all floors. We also were tasked with working with COM to create the M1 first TBL class centered around library resources and searching.”

Commented [s1]: This was not spelled out anywhere.

In the case of space, a proactive response to change appears to have resulted in an expanded role for librarians within the curriculum!

The creation of instructional materials emerged as another major task during the curriculum implementation phase with new areas of focus extending beyond informatics and EBM to biostatistics and journal club activities as noted by one respondent.

“The MD curriculum has been infused with new activities to improve medical student evidence-based practice skills... Librarians developed all the course materials (PowerPoint, handouts, LibGuide) and taught 1st year medical student immersion in both large and small groups... The librarian on the QEP [Quality Enhancement Program] steering committee taught the 2nd year medical student biostatistics refresher.... The EJC [Electronic Journal Clubs] sessions are led by a faculty physician (sometimes the clerkship director) and one of the health sciences librarians.”

### ***Roll-out***

Librarian participation in the roll-out phase of the curriculum development and revision process demonstrated a wide range of activities from advising to mentoring to revising library services. Reflecting the continuum of the overall curriculum development and revision process, respondents continued to report on teaching, committee, and technology/technical roles. In fact, activities involving technical support and shared leadership (i.e., co-mentors to small groups or co-teachers of a curriculum thread) predominated.

Librarians involved in leadership, teaching, and committee activities reported participating in the most complex range of activities during curricular rollout. Activities and roles often seemed to overlap. This complexity is reflected in the following response which encompasses leadership, teaching, mentoring, and technology support roles.

“The medical education librarian is a co-lead for the Information Mastery thread and is also a co-mentor for one of the Clinical Practice Development small groups. She supports

a blog and a private Facebook service as well to give students tips and other information throughout the curriculum. I also serve as a mentor for the introductory Cells to Society.”

### ***Level of Participation***

Overall, the roles health sciences librarians played in the three phases of the curriculum development and revision process emerged through participation on curriculum committees and were often cemented through strong technology support and/or creation of curricular materials in traditional areas such as informatics, EBM, and information literacy as well as in non-traditional areas such as biostatistics. A new aspect of curricular support proved to be space design.

Most respondents reported that they expected to play a role in the curriculum development and revision process when it was announced within their respective medical schools and, in retrospect, the majority of respondents reported that the role they played was as expected or larger than expected. Only four respondents reported playing a smaller role.

When asked to describe their role, many respondents reported positive experiences that reflected full and continuous participation in the curriculum revision process. Other respondents were less sure about the role they would play in curriculum development and revision but discovered that they were welcome as participants. As one librarian noted, “I wasn't sure how much I would have to ‘fight’ to be included. Not much, as it turns out.” One respondent voiced the importance of offering assistance as a key to participation, stating, “We had not been part of the curriculum committee in the past, and upon offering to help (and describing how we might be able to do so), we were delighted to accept multiple invitations to participate.” Other librarians reported that their role grew as the curriculum itself took shape.

Another factor in the level of participation by health sciences librarians in curriculum revision involved leadership and organizational changes at the institutional level. These changes were both positive and negative and completely out of the respondents' control. On the negative side, one respondent reported that, "Following the sudden departure of the SOM Associate Dean who was tasked with curriculum renewal, who was a big library champion, our role became smaller than expected." Another respondent reported a positive change in leadership, noting, "There was a leadership change in the larger longitudinal course that contains the EBM class. This change put me in the position of one of a small handful of people that worked on this part of the curriculum all the way through the process." Other respondents described key organizational relationships leading to their participation in the curriculum development and revision process. One respondent noted that his or her library was well-positioned within the larger organization to be aware of upcoming curricular changes and for visibility, stating,

"I think that librarians at our institution are fortunate to be a part of the larger Department of Curriculum. Thus we are aware of changes that might be coming... As part of the Department of Curriculum, the library is better positioned for higher visibility in the curriculum, and the important role that the library has in supporting it."

A number of respondents reported building on existing services and relationships outside of their medical school's leadership or committee structures. These relationships initially resulted from activities such as attendance at morning report, course content development, selection of electronic resources with faculty, and provision of liaison services. Relationships built during these activities also positioned individual librarians for participation in the curriculum development and revision process. As one respondent noted, "Participation in Morning Report facilitated relationships with clinical faculty who teach. This caused them to think about

involving librarians.” Another stated, “Liaison relationships were the key to being requested for research or service on committees.”

Reputation also promoted participation in the curriculum development and review process. Respondents reported building credibility or reputation by playing multiple professional roles, offering a range of services, serving on committees, and creating relationships with leadership. These activities provided librarians with a strong reputation for service and technology expertise. As one respondent noted, recognition of these skills resulted in being “considered an equal team member with others supporting learning technologies for the school of medicine, [I have] stronger relationships with faculty designing online library resources to support their instruction.”

While existing relationships and reputation precipitated participation in the curriculum development and revision process, the act of participating also resulted in the creation of new relationships for some respondents. For instance,

“Through the redesign process, I became known to additional faculty members in a role which I think they could more clearly understand. Additionally, my one-on-one work with the Assistant Dean for Clinical Education led to a good working relationship with him beyond the scope of the committee work. Others relationships that helped and were developed through the redesign process include clerkship directors/associate directors, course directors, and key administrative staff, have opened additional points of access within the school of medicine.”

### ***Evolving Relationships***

Evolving relationships could be categorized into three areas—new relationships, changed relationships, and expanded relationships. One librarian described the experience of developing new relationships in the following way.

“Some faculty from the curriculum committee were grappling with the complexities of inserting research instruction into the curriculum. They (and I) saw a strong relationship between information literacy instruction and research instruction. This common interest led to a collaboration on a project to weave information literacy and research instruction into the curriculum with the skills and knowledge from each scaffolding and supporting one another.”

The new and productive relationship described above was built upon complementary skill sets and interests among faculty and librarians. Another librarian reported a positive change in existing relationships, noting that, “While relationships have existed previously, they have been developed to be more of a strategic partnership than before (e.g., involvement in standing meetings and committees).”

Expanded relationships often grew out of increased time spent with faculty as related by one respondent, “I got to know the Deans and Department Heads better by attending these meetings. I was able to form better relationships since I was seen as a member of the College of Medicine faculty.”

### ***Impact of Participation on Professional Role within School***

Most respondents reported that participation in the curriculum development and revision process was meaningful and had a positive impact on their professional roles within the medical schools

served. Fewer respondents reported a positive impact on their professional roles within their own libraries.

Meaning often centered on a sense of having been able to contribute. For instance, one respondent noted that the curriculum development process provided a “chance to step forward, become involved, provide help and professional expertise.” Still another noted, “Rewarding to see that we can contribute as partners rather than in a more traditional supporting role.” However, one librarian expressed some impatience stating, “It was how I thought we were supposed to be relating to the schools all along and it surprises me it took us so long to be included.”

Respondents expressed a wide range of emotions beyond a sense of contribution. These emotions ranged from feeling excited to being challenged, from increased enjoyment of work to a sense of connection with faculty and the school of medicine. Many respondents simultaneously reported personal growth in areas such as teaching ability. Some respondents even revised their own sense of self as a result of participation in curricular revision. One librarian summed up this complex set of experiences: “Probably the biggest thing for me personally was learning to see myself as the expert in a particular area because that was how the medical faculty saw me.”

Another librarian also reported that his or her own experience of transformation translated into a new regard for the library itself. The transformation is described as follows, “It seems to have helped faculty see the library as a collaborator supporting education and research within the College, rather than as an entirely separate entity.”

In sum, participating in the curriculum development and revision process was meaningful to health sciences librarians because it often allowed them to grow professionally, enhanced their sense of self as professionals, and increased partnerships with faculty. Some respondents also

reported changed relationships with students. The positive impact on professional roles of participating in the curriculum development and revision process could be experienced in a number of ways simultaneously as this respondent noted.

“Primarily, I am more widely accepted as a member of the medical education community on campus. I have more access to the students, and more credibility with the faculty.

With faculty, I feel like this leads to fewer businesslike transactions and more collegial interactions based on shared interests. For the students, I feel that they have really started to see me as a resource akin to their faculty, but without the same pressure to perform and be completely on point.”

This correlation between meaningful transformation and professional impact was nicely summarized by another respondent, who stated,

“It is transforming from an old-school (content-based) librarian role to a forward-leaning role wherein we are active partners in education – in empowering students and researchers to derive meaning from health literacy. We are becoming co-faculty, co-leaders, and driving value to the university through the library.”

Not all impacts were immediate. A few respondents expressed a sense of future possibilities, stating that participation will lead to greater opportunity and professional growth, because, as one individual noted, “the library cemented its reputation as being forward thinking and innovative.”

### ***Impact on Role within the Library***

Surprisingly, in light of these very positive takes on the impact of the library's reputation following health sciences librarian participation in the curriculum development and revision process, many respondents reported that the professional impact within the library itself was minimal. As one librarian stated, "I don't think my participation had much of an impact on my professional role in the library. It was just another set of projects that I was involved with." Still another expressed the challenge of meeting new expectations while maintaining prior work responsibilities: "Though this was a very rewarding and informative process, it presented some challenges for managing workload and achieving a good balance in the time I could allocate to the various other aspects of my job." Other respondents saw an opportunity to mentor colleagues as a result of their participation in the curriculum development and revision process. As one respondent acknowledged participation,

"Gives me greater knowledge of opportunities for meaningful work and collaboration for all of the librarians working in my library. Makes me more effective in assisting colleagues in aligning personal goals in line with organizational priorities."

Interestingly, these skills were reported as transferable to activities developed for other health sciences schools. "Professionally, I am seen as piloting new online strategies for possible inclusion for the other health sciences schools our library supports as well as throughout the greater campus library community."

The impact of health sciences librarian participation in the curriculum development and review process on the library itself appears more complex for those libraries that operate within a university-wide system. Participation generally had a positive impact, but it could present unique challenges, as noted by another respondent.

“As the Associate Dean and Director of Health Sciences Libraries, I do not report to the medical school, so implementing a new curriculum for the medical school had some complex challenges in prioritizing the work, not allowing it to take away from the support that we provide to other health sciences schools, and helping the main library understand the fundamental and groundbreaking changes that are taking place in medical education.”

The impact of health sciences librarian participation in the curriculum development and revision process was often meaningful individually and extensive in terms of impact on librarian role. Respondents were asked how they would describe their role to colleagues. Some of those librarians who opted to reply responded very succinctly, stating that the experience was “transformative” and “collaborative and fulfilling.” Others provided very clear descriptions of their involvement in the curriculum development/revision process. For instance, “At first as a consultant with a special skills and knowledge. Later, as a true team member responsible for helping to guide the development of part of the curriculum.”

### ***Impact of Participation on Identity***

As reported in this survey, some health sciences librarians fully participated in the planning, implementation, and roll-out phases of the curriculum development and revision process and, in doing so, they undertook new roles, expanded upon existing roles, redesigned library spaces and services, acquired new electronic resources focused on student needs, and built upon existing relationships within their respective medical schools. However, did these librarians also experience a change in professional identity as an academic health sciences librarian?

Respondents to this survey identified emerging identities that included collaborator, educator, problem solver, leader, expert, and innovator. Several respondents reflected on earlier themes of increased visibility and higher perceived value overall for librarians within schools of medicine. Other respondents felt this increased perception of value on an individual level, expressing a sense of enhanced personal reputation. Several respondents indicated that they would not define their professional identity differently as a result of participation in the curriculum development and revision process. One individual simply described his or her professional identity as “same as before.”

On the other hand, many respondents saw a clear move toward the identity of educator. For instance, “I feel like I’m more of an educator than a librarian, at least in the ways that people traditionally speak about librarians.” This evolution toward educator was viewed positively by several respondents since it provided both professional growth and satisfaction. However, at least one respondent experienced more complex feelings about the role of librarian as educator and attempted to reconcile the two identities of educator and librarian by describing his or her identity as follows,

“I am more hesitant to think of myself professionally as an academic medical librarian... If I had to define my identity as a title it would probably be something like ‘information specialist for medical education.’ I am an expert in information (retrieval, resources, etc.) that is integrated into the UME/GME communities here to support learning and practice.”

Finally, one library director noted that involvement in the curriculum development revision process both renewed her personal identity and improved her understanding of the professional identity of the librarians reporting to him or her,

“Understanding the change to the curriculum and the path our university was using to get

there did renew my professional identity... It helped frame my understanding of my identity by bringing me closer to my librarians and the roles that they play as information specialists, instructional partners, teachers, program administrators, and leaders.”

### *DISCUSSION*

As a result of participation in the curriculum revision and development process, health sciences librarians clearly assumed new identities as educators, change agents, and problem solvers. The roles librarians played moved from a strictly supporting one to active partnering, collaboration, advocacy, and leadership. For many, these active roles evolved from the provision of educational and technology support activities and were a direct result of the skills and expertise they brought to the curriculum development table. Many librarians built upon prior work roles and relationships as well as subject expertise in information literacy and EBM. Thus, keys to success included personal expertise, collaboration skills, committee memberships, teaching experience, and strong personal relationships with faculty and school leadership.

Most librarians continued to play multiple roles throughout the curriculum development and revision process. Consequently, many respondents did not assume entirely new identities but instead enhanced their professional identities in positive ways. Direct involvement in the curriculum development and revision process often led to a greater alignment of library services and resources with user needs and greater professional recognition within their respective schools of medicine. Librarian roles were now sometimes described as complementary to faculty. Both strong personal values, such as honesty, creativity, and initiative, and professional values, such as information integrity, usability, and accessibility, supported the adoption of these

enhanced roles. In turn, additional personal values, such as flexibility, reliability, and openness, and professional values, such as service, communication, and collaboration, were incorporated into important and meaningful work that affected the education of medical students and enhanced the roles librarians played within their medical schools. Many librarians expressed a sense of pride and appreciation as a result. They enjoyed being more fully integrated into the mission of their schools.

Only a few librarians expressed concerns over the adoption of new roles in terms of appropriateness, tensions, or conflict with prior roles. However, most respondents found meaning and satisfaction in participation.

Organizational factors within the medical school and the larger university library system could also present obstacles to participation. Conversely, a supportive institutional or organizational context often facilitated the process of involvement and professional development.

The experiences of the health sciences librarians who responded to this survey validate many of the premises outlined in the literature. Participation in the curriculum development and revision process led to “stretched identities,”<sup>32</sup> emerging educator roles,<sup>2, 33</sup> and a more consultative practice of librarianship aligned to user needs.<sup>2</sup> Librarians grew professionally but did not abandon their sense of identity or values as librarians.<sup>17, 20</sup>

Success often hinged on identifying skills that complemented faculty expertise coupled with open and innovative attitudes.<sup>3, 18, 19</sup> Recent changes in the library sciences, medical education, and health care environments have resulted in a user-centric, team-based approach to medical library practice,<sup>3, 8</sup> and health sciences librarians who participated in the curriculum

development and revision process appear to have the collaborative skills needed to succeed in this environment. As one respondent noted,

“We’ve moved beyond one-shot instructional sessions and orientations to a true partnership with colleagues within and outside the library. The future for academic health sciences libraries is bright at well-established medical schools with the desire to renew their curriculum and curricula within higher education.”

### *LIMITATIONS*

The survey was lengthy and questions primarily open-ended. Respondents were asked to reflect upon a complex experience and describe their roles, values, meaning, participation, and evolving identities while participating in the curriculum development and revision process. As a result, there were a large number of individuals who dropped out of the process entirely or only answered some questions. The core group of individuals who completed the entire survey may be composed of librarians with a high level of work autonomy and self-esteem as described by Kira, Balkin, and San,<sup>20</sup> as many reported having both faculty status and strong support for professional development. Such individuals may possibly experience workplace change more positively. Freedman posited that strong institutional support for professional development and growth positively influences librarian professional identity.<sup>33</sup> Results are not comprehensive but they are informative and offer a good starting point for further research into evolving professional identity in health sciences librarianship.

### *CONCLUSION*

This study explored new roles and emerging identities for health sciences librarians within curriculum development and revision by examining their experiences as participants in the process. It adds to the knowledge base on emerging roles for health sciences librarians and may help library science educators and health sciences librarians further enumerate the skills, knowledge, and attitudes required for successful practice in the evolving environment of undergraduate medical education and health sciences libraries. Additional studies to explore this premise and the evolving professional identity of health sciences librarians are needed. Further exploration of the impact of organizational structure on librarian roles and of emerging leadership and teaching roles should prove fruitful.

Received: May 4, 2016

Revised: July 21, 2016

Accepted: July 27, 2016

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