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Health sciences librarian research and instruction services in pandemic information environments

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\textbf{A R T I C L E   I N F O}

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\textbf{A B S T R A C T}

This study examined research and instruction services provided by academic health sciences librarians in the United States during the COVID-19 pandemic. A total of 205 respondents (N = 205) completed an anonymous online survey about academic health sciences librarian involvement in providing research and instruction services during the global pandemic. In-depth literature searching services (86\%, n = 176), curated COVID-19 research through guides (66\%, n = 135), and systematic review consultations (53\%, n = 109) were reported as the top three research services in demand. Librarians supported online teaching and learning at their institutions by providing online instruction for a course (92\%, n = 189), facilitating access to licensed resources (73\%, n = 150), and identifying open access and open educational resources (62\%, n = 127). Overall, this study contributes to understanding pandemic-responsive academic library services to meet the unique needs of health sciences education and research in evolving COVID-19 pandemic information environments.

\textbf{Introduction}

The COVID-19 global pandemic presented a significant impact on facets of daily life and caused disruptions in teaching, learning, research, and library services. When the World Health Organization (WHO) declared the novel coronavirus a global pandemic in March 2020, the disease outbreak led to unprecedented lockdowns around the world (WHO, 2020). During this unfolding situation, many countries implemented social distancing measures and mandated the temporary closures of physical buildings to curb the spread of the novel coronavirus, commonly known as COVID-19.

For many academic health sciences libraries, this new COVID-19 pandemic information environment necessitated the closure of physical library spaces or dramatically limited in-person services for library spaces that remained open (Clifton et al., 2021; Yu & Mani, 2020). Early in 2020, library staff adjusted to remote workplace arrangements on short notice and moved to more virtual service delivery models (Gotschall et al., 2021; Howes et al., 2021). During this time of uncertainty, the surge of virtual services emerged as a way to reconfigure and continue services for library users (Radford et al., 2021).

As academic library spaces and services were being reshaped during the COVID-19 pandemic, the scientific information landscape was simultaneously evolving in an accelerated manner (Iskander & Bianchi, 2021; Trembach & Deng, 2021). Critical information during times of crises is important to help inform policies and prepare emergency responses. Yet, keeping up-to-date with constantly changing surveillance data, laboratory testing information, population data, and environmental exposure research presented a formidable task (Iskander & Bianchi, 2021). In response to these unique challenges, librarians expanded research support offerings to help monitor COVID-related information, identify new findings, and share the best available evidence with clinicians and organizational leaders (Sullo & Brody, 2021). Hence, the rapid transformation of the information landscape and library workplaces created a new pandemic information environment. In this fast-changing terrain, it is important to build a fuller understanding of how academic library services for the health sciences were reshaped and adapted to this public health crisis. To address this gap in the literature, results are presented from an online survey examining academic health sciences librarian involvement in providing research and instruction services during the first year of the COVID-19 pandemic.

\textbf{Problem statement}

Several studies highlight the important role of academic health
in response and recovery efforts related to earthquakes, fires, Hurricane Katrina (McKnight, 2006). Librarians have been further disseminating reliable information to communities in the aftermath of COVID-19 specifically on academic health sciences library instruction services, focusing on the shift to online instruction (Hickner et al., 2021; Patterson & Hull, 2021; Shin et al., 2021). While these examples from the extant literature largely describe how either an individual library or a group of regional academic libraries provided services during the COVID-19 pandemic (Gotschall et al., 2021; Howes et al., 2021; Koos et al., 2021; Lindsay et al., 2021; Mazure et al., 2021; Sullo & Brody, 2021), more research is needed to specifically document how academic health sciences librarians nationwide across the United States (U.S.) adapted research support and instruction services for their respective communities during this time of crises. Additionally, a discussion of how academic health sciences librarians perceive the lasting impact of the COVID-19 pandemic on the future of library services would provide a guidepost for tracking the long-term impact of the global pandemic on librarianship. These topics warrant further investigation, and the present study contributes new insight to the existing body of literature.

To fill this gap in the literature, the main objective of this study was to examine academic library services, specifically the range of research support and instruction, for the health sciences provided during the COVID-19 pandemic across the United States. The term “health sciences” refers broadly to medicine, nursing, pharmacy, public health, dentistry, and other health-focused programs. Therefore, this study examined the following four research questions:

1. What types of research support services did academic health sciences librarians provide during the COVID-19 pandemic?
2. What role did academic health sciences librarians provide in supporting instruction, specifically online teaching and learning, during the COVID-19 pandemic?
3. What types of new research and/or instruction services were offered during the COVID-19 pandemic that were not previously offered?
4. How will the COVID-19 pandemic impact research and/or instruction services going forward?

Literature review

Background

Previous studies illustrate health sciences librarian services during times of crises. Health sciences libraries played an important role in disseminating reliable information to communities in the aftermath of Hurricane Katrina (McKnight, 2006). Librarians have been further involved in response and recovery efforts related to earthquakes, fires, floods, and tornadoes (Featherstone et al., 2008). In response to the 2014 West Africa Ebola outbreak, the U.S. National Library of Medicine offered no-cost online resources for health professionals, planners, responders, and researchers (Love et al., 2015). Additionally, free access to full-text articles from biomedical journals and online reference books were provided through the cooperation of participating publishers during the 2014 Ebola Outbreak (Love et al., 2015).

In the beginning of the COVID-19 pandemic, similar initiatives were undertaken to facilitate access to information for public health response efforts to the outbreak. For instance, librarians were tasked with providing access to medical, scientific, government, and other types of information in this unfolding “pandemic information environment” (Lloyd & Hicks, 2021, p. 10). Likewise, health sciences librarians provided trustworthy COVID-related information through the creation of online resources guides for their patrons (Clifton et al., 2021; Gotschall et al., 2021; Lindsay et al., 2021). Academic libraries also expanded access to digital scholarly sources in the pandemic era to support students, faculty, and researchers (Trembach & Deng, 2021).

Early in the COVID-19 pandemic, a large number of editorials, opinions, advice pieces, and case studies were reported in the literature focusing on how a single library “could continue to function and remain relevant during a pandemic-induced social lockdown” (Yatcella & Young, 2021, p. 969). Articles published during the earlier stages of the COVID-19 pandemic also prominently featured the shift to virtual reference services (Hoffner et al., 2021; Howes et al., 2021; etc.), underscoring the need for more empirical research studies on the range of academic health sciences library services in addition to virtual reference.

Research support during COVID-19

In a review of the literature on the pandemic’s impact on reference and research services in academic libraries, Osorio and Droog (2021) noted an evolution in services with an increase in chat reference, videoconference consultations, and online library instruction embedded in course learning management systems.

In literature focused specifically on the health sciences library setting, Sullo and Brody (2021) discussed the development of a COVID-19 Intelligence Report, which served as a concise, authoritative source of COVID-19 information for clinicians, the Incident Management Team, and operational leaders. A common approach librarians took to supporting research was through the creation of a COVID-19 LibGuide (Clifton et al., 2021). Lindsay et al. (2021) noted that librarian control of LibGuide content (rather than a website which might be controlled by an institutional IT department) assisted the librarians in quickly providing the most up-to-date information and resources. Yu and Mani (2020) examined websites of U.S. academic medical/health sciences libraries and identified common responses to the pandemic included customized library guides (i.e., LibGuides), comprehensive and customized search queries, and curated resources for COVID-related data.

Online teaching and learning

Teaching and instruction were one of the most popular topics for medical or health sciences librarians in a bibliometric study of 2020 COVID-19 literature (Yatcella & Young, 2021). Librarians who support and provide instructional services took “swift action” (Mi et al., 2020, p. 330) to ensure students and faculty had a smooth transition to the online environment that came as a result of sheltering in place and quarantining. Koos et al. (2021) described how academic health sciences librarians in “one of the earliest epicenters of the pandemic” (p. 67, i.e., New York) supported medical students and faculty through services such as providing access to a virtual anatomy resource when the in-person anatomy training labs were closed by implementing a new online anatomy resource, as well as assisting faculty in locating and embedding streaming video to support instruction. McCallum and Burt-Nicholas (2021) spent the summer of 2020 digitizing their library's 300-item anatomical model collection to make it accessible to anatomy and physiology students. While these services were implemented as a direct result of the COVID-19 pandemic, the authors noted that the high interest in the resources and continued usage indicated a permanent change in the types of services provided rather than a temporary modification.

Additional instructional changes have been reported as case studies, including librarians at Cornell Medical College who redesigned first-year medical student library orientation sessions to be held via Zoom rather than in person, modifying their treasure hunt format to the virtual setting (Hickner et al., 2021). Patterson and Hull (2021) at the University of Utah expanded their multimedia studio to include a podcasting suite designed to assist faculty who are transitioning to audio-based asynchronous learning.

As Radford et al. (2021) noted in their study of academic librarian reference services, “it could be argued that COVID-19 prompted an
upheaval in academic libraries whose magnitude is unequaled in modern times” (p. 107). While several studies in the extant literature have explored the shift in services at general academic libraries, and other studies have looked at either a specific health sciences library or focused on reference services (Charbonneau & Vardell, 2022) more research is warranted to understand the “upheaval” in academic health sciences libraries and build a fuller understanding specifically of research support and online instruction provided by academic librarians in the health sciences during the pandemic. The current study focuses explicitly on research services and instructional support and explores the realities facing academic health sciences libraries in a post COVID-19 environment.

Methodology

Sample and instrument

The target population for the study was academic health sciences librarians and other information professionals with health sciences liaison responsibilities in the United States (U.S.). Academic health sciences librarians were and are poised to provide a unique lens to studying this issue as they provide services to a myriad of patrons including their academic communities, health care providers, and the members of the public. In addition, their longstanding reputation for providing quality health information serves as a strong foundation upon which to provide COVID-19 information services. Given that countries, and different library settings such as hospital libraries, varied in their responses and closures to the COVID-19 pandemic, this study focused on academic libraries in the U.S. providing services to the health sciences.

The Institutional Review Board at Wayne State University granted permission to conduct the research study (Protocol ID: IRB-20-12-2977). The questionnaire was developed by the authors and pre-tested with members of the target audience before disseminating the survey. The results are part of a larger study to analyze the impact of COVID-19 on academic health sciences library services in the U.S. and changes to reference services have been reported in the literature (Charbonneau & Vardell, 2022). The larger study consisted of 20 survey questions administered as a single survey in March 2021. In this paper, a subset of the larger survey questions was analyzed and unique findings pertaining to research support and instruction for the health sciences during the COVID-19 pandemic over a one-year period (March 2020–March 2021) are presented. Respondents were asked the same set of survey questions and provided with an opportunity to elaborate about any new services offered during the pandemic as well as share their thoughts about the future of academic library services (see Appendix A for the survey questions included in the analysis).

Data collection and analysis

A link to the online survey was distributed in March 2021 to members of the target audience to solicit participation. Academic health sciences librarians and other information professionals with health sciences liaison responsibilities in the U.S. were invited to voluntarily participate in the online survey. Potential respondents were recruited via the MEDLIB-L and Medical Library Association Chapter listservs (MLA, 2022) and asked to complete an online questionnaire. These public email listservs are open to all interested health sciences librarians and information specialists as a platform to discuss professional issues (MLA, 2022). These prominent listservs have been used in previous studies to recruit research participants (Miller, 2020; Schulte & Knapp, 2017). Participation in the online survey implied informed consent and this consent process was explained in the survey preamble. Respondents were also informed that responses to the questions would be compiled and reported in aggregate only and they could stop participating in the online survey at any point. One follow-up email reminder was sent a few weeks later to increase participation in the online survey. The survey was closed at the end of March 2021 after one month of data collection.

Data were collected using Qualtrics, an online survey management system, and survey items were primarily closed-ended questions with response options already provided for respondents. Quantitative data obtained through the closed-ended questions were exported to Excel for analysis using descriptive statistics. The survey also consisted of two open-ended survey questions to provide respondents with an opportunity to answer in their own words. These free text, narrative responses were analyzed manually by the two researchers to identify salient quotes which illustrated themes that corresponded to the main research questions. These quotes provide an opportunity to highlight specific examples from the participants’ experiences that demonstrate the new and evolving research and instruction services. Next, principal survey findings are presented.

Findings

Respondent characteristics

A final sample consisting of 205 academic health sciences librarians and other information professionals with health sciences liaison responsibilities in the U.S. completed the online survey. All results are based on 205 survey respondents (N = 205) and participants were from 36 states across the U.S. The majority of respondents worked in academic health sciences libraries (63%, n = 129), followed by librarians working in academic library settings with liaison responsibilities to health sciences disciplines (24%, n = 49). The remaining respondents worked in academic settings outside of libraries supporting the health sciences (13%, n = 27), such as information professionals embedded in departments, medical education, and informatics centers on campus.

Research services during the COVID-19 pandemic

When asked about the types of research support services provided during this time, respondents shared that in-depth literature search consultations were the most common service (86%, n = 176). As seen in Table 1, this was followed by curated COVID-19 research through research guides (66%, n = 135), systematic review consultations (53%, n = 109), and access to COVID-related datasets (36%, n = 74). Grant writing and grant support was provided by 16% (n = 33). The closed-ended survey question also included an “Other” option where respondents could write-in their own answer. These responses were reviewed, and similar comments were grouped together manually during thematic coding to create the two categories “Informational displays (physical displays)” and “Targeted email messages/newsletters” seen in Table 1.

Support for online teaching and learning

Academic health sciences librarians reported supporting online teaching and learning in several ways. Table 2 lists the five most common instructional roles that librarians reported with regards to...
supporting online teaching and learning at their institutions early on during the COVID-19 pandemic. The most frequent ways reported by survey respondents included providing the following: online instruction for a course (92%, n = 189), licensed digital resources for faculty/instructors (73%, n = 150), and open access and open educational resources (62%, n = 127).

**New and expanding library services during the COVID-19 pandemic**

A growing trend reported by survey respondents in response to the open-ended questions about new services their library offered was the demand for evidence synthesis services, including systematic and scoping reviews. One respondent reported “a sharp increase in the number of requests for full systematic and scoping reviews with librarian co-authorship involvement.” To help further illustrate this point, another respondent commented: “We never did systematic reviews prior to COVID-19 because we never had requests for them. Now we’re seeing an increase in these types of requests so we’ve been trying to add as much support as possible.” While in some libraries these services may not have been brand new, the survey responses demonstrated ways in which the pandemic pushed librarians to expand services and respond to the evolving demands of researchers and other patrons.

Another theme that arose during thematic coding of the open-ended survey questions was the increased need for online instruction, especially to support faculty transitioning from in-person to online teaching environments. One respondent shared a proactive approach which involved “cold calls to faculty who moved from f2f [face-to-face] to online listing online services.” This was viewed as an opportunity to establish a strong online instruction presence and to reach faculty that may not have been aware of instructional services prior to the pandemic. Participants specifically outlined creative approaches to online instruction during the COVID-19 pandemic. One participant commented: “Instead of lecturing to a full class about information literacy, I met virtually with multiple small groups of the class members. I have been able to involve students more directly, asking them to share screens and demonstrate skills and encouraging discussion that does not usually occur with a large group in a classroom seating arrangement.”

Academic health sciences librarians looked for opportunities to push timely information to their patrons including “weekly newsletter[s] with evidence synthesis and other current awareness of covid literature.” Another participant reported their involvement in providing “a searchable set of COVID-19 best evidence, open access resources” to patrons as well as one respondent who mentioned providing patrons with “daily COVID-19 funding updates.” Respondents also addressed the need for more digital content in their open-ended explanations of new library services. One participant stated: “We provided temporary access to more digital health sciences textbook resources during the height of the pandemic.”

To summarize, newer library services emerging during the pandemic described by survey respondents included virtual instruction support for faculty moving to remote teaching, virtual consultations with individual students or small student groups, monitoring of new evidence, weekly COVID-19 evidence updates, increasing or new requests for systematic review services, and more demand for digital content (e.g., open access resources).

**Future of academic library research and instructional services**

Survey participants were asked to expound on how the COVID-19 pandemic was impacting research and instruction services going forward. Another theme expressed by participants was an increase in virtual research consultations and a feeling that the trend was here to stay. As one participant shared, “There will continue to be an increased availability and use of virtual reference, research, consultation and instruction moving forward. The COVID-19 pandemic has created a paradigm shift in the options for library services moving forward. In-person will be an option but increasingly, faculty, student[s], researchers and other users will be more comfortable with a virtual option.”

These services were not necessarily new to libraries serving the health sciences but were increasingly popular. To illustrate this point, one respondent commented: “We anticipate that we will continue to offer online consultations. We started doing them more in March 2020 and now they are the norm. I suspect we will all skip the walk across campus whenever possible.” Librarians noted that some aspects of a virtual research consultation were preferable: “The screen share function is especially awesome so that the librarian and patron are looking at the same thing when using the databases and other resources.” Librarian participants even noted an increase in overall requests, and one respondent stated: “[We’ve seen] more demand on services, faculty having more time to do research, [and an] increase in the number of classes. We certainly have seen a high demand for systematic review requests and student and faculty consultations.”

Librarians also noted an increase in requests for instructional support: “More virtual support & creation of learning objects to be used asynchronously.” A common theme that emerged during thematic coding about the future of instruction was the noticeable increase and permanent shift to virtual: “I suspect a shift to sustainable instruction will be a lasting change - we will return to in-person instruction where it makes the most sense and adds value and also use digital learning objects where they make the most sense and to supplement in-person instruction.”

Librarians noted that the increase in requests for virtual instructional support came at a cost: “The virtual instruction content I created (videos, LibWizard Tutorials customized and embedded in courses) could potentially replace in person library instruction. It was hard to get faculty to carve out class time before for librarians to visit the classroom, now I think faculty will continue to ask for and expect the virtual component instead.” One librarian further noted that this cost was not only a lack of time in the classroom but also an increase in the time needed to create these instructional materials: “I’ll lose time in the classroom, ‘oh we’ll just have you tape something’ like that’s not about 3x the work for me and means I don’t get to ask questions.” Finally, the necessity of continuing to market the value of library services was highlighted. One participant commented that the future of academic health sciences library work would mean “more and better quality just in time videos for instruction… [and] more effort drumming up work (i.e., being entrepreneurial to get faculty & students to use our services).”

**Discussion**

**Research overview and participants**

Few studies to date have examined research and instruction services on a national level provided exclusively by academic health sciences librarians in the U.S. during the COVID-19 pandemic. The present study found that pandemic-inspired changes included delivering more virtual research services and online instruction as these library services adapted in response to the evolving landscape. These findings add new insight.
and illustrate the range of research and librarian instructional roles during the COVID-19 pandemic, thereby expanding upon previous work which focused on academic librarian instruction during this time (Shin et al., 2021). Overall, these findings help to build a larger picture of trends within the field. Next, key findings about academic health sciences librarian services during the pandemic amidst seismic shifts to research and education in the health sciences are presented.

Research support

In this rapidly changing scientific information landscape, librarian liaison work in the health sciences led to efforts to support research in new and innovative ways. A noted contribution of this study is the documentation of the dramatic increase in the number of requests for systematic and scoping review services. This demand was evident from both the survey responses and emphasized in the direct quotes from respondents. While demand for systematic review services has increased in recent years (Spencer & Eldridge, 2016), the exponential increase in popularity of these services may be explained by the fact that researchers were looking for ways to continue research in socially-distanced and remote ways as institutions suspended face-to-face research studies involving human participants. In addition, there was a large volume of COVID-related information being published (in some cases accelerating or forgoing the peer review process to expedite getting treatment information into the hands of health providers (Horbach, 2020)), thereby resulting in the need for the evidence to be continually monitored and synthesized.

Opportunities arose from the COVID-19 pandemic to expand research services for practicing health care providers, researchers, and other campus community stakeholders. Survey respondents reported new services such as preparing COVID-19 evidence reports to help support evidence-based response efforts, facilitating access to curated COVID-related research and datasets, finding relevant funding opportunities for researchers, and providing grant writing support. These findings are similar to the efforts reported by one academic medical library and their involvement in creating COVID intelligent reports for clinicians (Sullo & Brody, 2021). Indeed, these findings demonstrate that health sciences librarians are rapidly responding to the explosion of COVID-related literature and demonstrate the level of demand for these services. This finding further supports the need for librarian involvement in continually evaluating COVID-related treatment topics (Ansuategi et al., 2020; Morgan-Daniel et al., 2020).

Online teaching and learning

As instruction increasingly moved online during the pandemic, academic health sciences librarians served in various roles to support online teaching and learning at their universities early on during the COVID-19 pandemic. These roles ranged from delivering instruction for courses that rapidly moved online during the pandemic and providing instructional design advice to faculty. Librarians also reported furnishing fair use and copyright information for digital course content. Another key point was the increased demand for identifying open educational resources as an emerging need to help instructors locate alternative course materials that were either open access, had open licenses, or were in the public domain. With regards to directly supporting student learners in virtual classrooms, librarians connected students in the health sciences with online learning materials, such as videos and electronic textbooks, and met virtually with students to discuss coursework or projects. Work by Shin et al. (2021) also reported academic librarians successfully provided one-on-one virtual consultations with students during the pandemic.

Many educators in higher education were asked to swiftly modify their face-to-face courses as the COVID-19 pandemic unfolded with minimal or no institutional support, such as the necessary training and resources for faculty to transition to online learning and digital pedagogy (Purcell & Lumbregers, 2021). This resulted in opportunities for librarians to improve or expand instruction services (Shin et al., 2021). The support of online teaching and learning fulfills a critical need within academic environments and presents an opportunity to rethink “one-shot information literacy sessions for the virtual environment” (Yatcilla & Young, 2021, p. 970). Moving forward, faculty will need ongoing assistance from librarians with adjusting their teaching methods, adopting best practices for online education, and instruction on the effective use of collaborative tools for online student engagement.

It is noteworthy that education in the health sciences also experienced significant changes as a result of the COVID-19 pandemic. Clinical activities, such as bedside teaching, anatomical dissection labs, and on-site internships where students gain hands-on experience with direct patient care and earn clinical hours, were initially suspended during the pandemic and then eventually adapted virtually whenever possible (Kaul et al., 2021). Interestingly, few of the survey respondents shared their experiences of supporting online clinical-related educational activities. One respondent shared that the library provided “Human dissection videos to supplement anatomy labs and as a Plan B if another lockdown.” Zhou et al. (2021) noted that medical schools expressed concerns because students were pulled from direct patient care activities during the pandemic, and thus students might not be able to achieve the competencies required for graduation. Several examples drawn from the literature might serve as useful avenues for more librarian involvement in online clinical education activities. The concept of “virtual rotations” emerged as a creative way to continue online student participation in grand rounds, patient care, lectures, mentoring, and journal clubs (Kaul et al., 2021, p. 1953). In radiology, “virtual escape rooms” were designed as game-based learning exercises for medical students and interns when patient examinations and on-site clinical training were curtailed during the COVID-19 pandemic (Adams et al., 2021). These virtual-reality (VR) and game-based escape rooms provided a safe way to maintain student education through the use of “exercises for critical thinking and communication skills in simulated clinical experiences” (Kaul et al., 2021, p. 1953). Given that few survey respondents discussed supporting online clinical-related educational activities, academic librarians can explore the movement to virtual laboratories, clerkships, rotations, and journal clubs as noted in these examples as possible ways to expand participation and support for online clinical education in the health sciences.

New and expanding library services

The creation of new and expanded academic library services for the health sciences in response to the COVID-19 pandemic included online instructional support, virtual consultations with individual students or small student groups, COVID-19 evidence updates, increasing requests for evidence synthesis services, and identifying open access resources (OER) for courses. Librarians also highlighted the demand for more digital content and responded by providing access to more electronic textbooks, online course reserve materials, and increasing the number of “seats” for digital subscriptions. Some of these services (e.g., the critical appraisal of evidence) draw from unique skill set areas within an academic health sciences librarian’s toolbox.

New pandemic-inspired services, such as daily COVID-related funding news and daily or weekly COVID-19 updates for campus stakeholders as new evidence became available, were not previously offered and demonstrate the responsiveness of librarians to adapt and innovate to emergent situations. Likewise, OER continues to present a promising avenue for librarian and faculty collaboration in the identification and development of authoritative, open education and information sources to support the educational missions of academic institutions.

The COVID-19 pandemic exacerbated existing inequalities in access to scientific and medical information and presented a “stark reminder to many about the importance of collections accessibility and the constraints of copyright, licensing, and publishing models that can present..."
barriers to access’’ (Yatcilla & Young, 2021, p. 970). Promoting and assisting with the development of OER is just one example of a way to address inequalities by lowering the financial barriers to accessing course materials. One participant further shared: ‘‘We added WiFi hotspots as an item for checkout.’’ In this regard, librarians can continue to explore meaningful ways to address factors related to digital inequalities, particularly those heightened by the move to online-only and a reliance on internet access. Services such as providing free internet access, hotspots or loaning devices to students with need may be helpful to begin addressing some of these inequities.

Impact on the future of academic library services

This study presented an opportunity for participants to both reflect on a year of services during the COVID-19 pandemic as well as future forecast how these changes might impact academic library services post-COVID-19 pandemic. An overwhelming theme was the idea that the move to virtual (both in consultation as well as instructional services) was going to be a lasting shift. Many people perceived there would be continued flexibility to work from home and provide services remotely (e.g., Zoom consultations, embedded in Canvas courses, etc.). Additional research is needed to see if that is indeed a trend that continues. Are academic library directors and managers continuing to support the ability of academic librarians to perform their duties while teleworking and evolving approaches to virtual research and instruction as anticipated? Have these experiences led academic librarian partnerships among academic, hospital, and other information services also presents opportunities and implications for future library services. This may include positions that are focused on providing these services (e.g., an Evidence-Synthesis Librarian or Systematic Review Informationist). With the increasing volume of COVID-related information being published, there will also be an ongoing need for librarian expertise in evidence synthesis methods to help continuously monitor and assess the evidence. These trends present ongoing training needs for academic librarians to develop these specialized skills and knowledge.

Finally, with the increased demand in online instructional support, librarians will have to explore and balance the time and skills involved in meeting these new demands. Again, this presents an opportunity for the creation of professional development in instructional design and other related skills to fully equip librarians to provide instructional support. Librarians will need to continue to envision ways to create meaningful connections with patrons without the opportunity for face-to-face interactions.

Limitations and suggestions for future research

This study focused on academic health sciences librarians in the United States, and, therefore, cannot speak to the experiences of librarians in other settings. Additional research should be performed to explore the impact of COVID-19 in other information environments, including outside of the health sciences and in international settings. In addition, additional research is needed to explore health sciences librarian partnerships among academic, hospital, and other information professionals or organizations for supporting clinical education activities (e.g., rotations, etc.) during the pandemic. Future research may consider utilizing a wider range of listerers, beyond the MEDLIB-L and Medical Library Association Chapter listserv used in the study, to expand recruitment efforts of potential respondents. This study highlights the direct impact of the COVID-19 pandemic on academic health sciences librarian services, and additional studies are needed to explore long-term effects, such as the continued ability of librarians to perform their duties while teleworking and evolving approaches to virtual research and instruction support. For example, during year two and post-pandemic, is there still a demand for virtual research and online instruction as anticipated? Have these experiences led academic librarians to plan in places for service delivery to quickly adapt to the next public health crises? Future research should also explore the lessons learned for the COVID-19 global health pandemic and how these experiences have informed crisis planning for academic library services.

Conclusion

In closing, these findings contribute to the literature by providing a nationwide snapshot and showcase academic health sciences librarian involvement in providing research and instruction services during the first year of the COVID-19 pandemic. Librarians delivered instruction for courses that rapidly moved online during the pandemic and reported a demand in virtual research services, especially systematic review consultations. Overall, academic library services adapted and responded to the unique needs of health sciences education and research in these new pandemic information environments.

Declaration of competing interest

The authors declare there is no conflict of interest.

Data availability

Data will be made available on request.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.acalib.2022.102553.

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