

Feature

Scoping Reviews in LIS

A Process for Collaboration and Learning

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Abstract

Scoping reviews, which offer a broad look at the published literature while maintaining rigor, are increasingly common in library and information science (LIS), as well as the disciplines that research librarians serve. Best practices for scoping reviews have been established primarily through the fields of health and medicine. Undertaking a LIS scoping review project following these best practices, a research team of librarians found them to be applicable to LIS scoping reviews as well, though considerations like document type and time management have more particular implications in LIS. LIS practitioner researchers should use the model for scoping reviews developed for health and medical research, adjusting as necessary. Following these best practices not only increases the rigor and quality of scoping reviews in LIS, but also helps librarians to better understand the processes their patrons may be using for scoping reviews, as university librarians are regularly expected to assist in such efforts.

Introduction

Scoping reviews, which are a type of synthesis using a systematic approach to track published research and expressions of a particular topic in the literature of the field within a specific time period, are becoming increasingly prevalent in published literature, not only in the health sciences, but in other disciplines as well.¹ Scoping reviews follow a set protocol requiring a more rigorous and transparent process than a general literature review; but unlike a systematic review, they allow for broader exploration of the literature and are not focused on critically appraising evidence to formulate a conclusive response to a specific and answerable research question. Librarians and other information professionals are increasingly called upon to assist with scoping reviews, particularly the search strategy piece. At the same time, the number of scoping reviews published in the library and information science (LIS) literature has also increased, though they remain a lesser-known methodology in the field. In an effort to learn more about scoping reviews for the purpose of assisting library users with scoping reviews, as well as to experiment with how this methodology applies to the LIS research field, we embarked on a scoping review project, documenting our process, challenges, and successes.

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Objectives

We had two primary goals in undertaking a scoping review project. First, we wanted to become more familiar with and increase our expertise regarding scoping reviews. At the time of starting this project, we all worked for the same library, affiliated with a graduate health sciences university. We observed a steady uptick in the number of students and faculty members engaging in scoping reviews. Students, particularly, were often choosing to take on scoping reviews as their programmatic capstone projects. Often, students and faculty members would approach various librarians on our team for assistance not only in developing the search strategy for their projects, but also for guidance on scoping reviews in general: where to start, what is needed, and standards to follow. As a result, we created a module for our Scholarly Skills Community called “Systematically Searching for Scoping Reviews,” but we also wanted to immerse ourselves in a better understanding of scoping reviews so that we could better relate to and support the challenges face by the researchers.² We decided the best way to do that was to engage in a scoping review project of our own.

Our second goal was to document and outline a scoping review process applicable to the library science field. While the role of librarians and other information professionals in assisting with scoping reviews in other disciplines, particularly medical and health sciences, is well-documented, there is less documentation around librarians undertaking and reporting on scoping reviews of and for the LIS literature.³ A search for the term “scoping review” in the Library and Information Science Abstracts (LISA) database netted approximately 1,000 results, almost 75% of those published since 2020. These were primarily scoping review studies performed by librarians for the LIS literature, or articles discussing the role of librarians in the scoping reviews of other disciplines, but little to no coverage of applying the scoping review process to the LIS field. These sorts of process discussions are numerous in the literature of other disciplines, especially medical and health sciences, where it is not unusual to find scoping reviews about scoping reviews.⁴ While it would be best practice for information professionals to follow the same scoping review process and reporting guidelines established by other disciplines, there may be additional recommendations or considerations unique to LIS.

Review of the Literature

One of the earliest published methodological frameworks for “scoping studies” was by Arksey and O’Malley in 2005.⁵ They referenced the scoping study as a tool for evidence-based practice, which by that time was a well-established concept in medicine and gaining traction in other disciplines as well. Systematic reviews—considered the gold standard for filtered evidence in evidence-based practice—are rigorous, with strict requirements surrounding scope and the need for a well-defined research question, which the researchers hope to answer through the review. Researchers sought a review methodology that would allow for broader exploration of the literature but still with more rigor and control than a general literature review provided. Arksey and O’Malley listed four common reasons for using a scoping review methodology:

1. to examine the extent, range and nature of research activity
2. to determine the value of undertaking a full systematic review
3. to summarize and disseminate research findings
4. to identify research gaps in the existing literature

Their framework conformed to the systematic review requirement for a “rigorous and transparent” process that can be replicated, but with a goal of more “in-depth and broad results.”⁶

As researchers began to incorporate the Arksey and O'Malley framework for scoping studies, they identified opportunities for improvement and refinement. Levac, Colquhoun, and O'Brien found a need to "clarify and enhance" the scoping study stages and provided recommendations to produce and report more rigorous evidence.⁷ At the same time, Rumrill, Fitzgerald, and Merchant clarified the differences between scoping "reviews" and other types of review studies, such as narrative reviews, empirical reviews, and meta-analyses.⁸ Rumrill, Fitzgerald, and Merchant (following the line of thought of Davis, Drey, and Gould rather than Arksey and O'Malley) identified scoping reviews as vehicles for preliminary investigation of a topic rather than "studies in and of themselves," and pointed out that in scoping reviews, researchers do not necessarily assess the quality of the published studies they include.⁹

In 2017, the Joanna Briggs Institute (JBI), well-known for their work with systematic reviews, provided guidance to researchers for conducting scoping reviews in a systematic and transparent way. Peters et al., with JBI, built on Arksey and O'Malley and Levac, Colquhoun, and O'Brien's work in this area.¹⁰ A true milestone in the development of scoping reviews as a methodology was Tricco et al.'s formalization of the framework within the PRISMA reporting guidelines.¹¹ PRISMA-ScR (Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews) extended the rigorous PRISMA reporting standards used in systematic reviews to scoping reviews, presenting a checklist of 20-plus reporting items that researchers should include in their final published report of a scoping review project and that consumers of research should use in evaluating the scoping reviews they find in the published literature.

In LIS literature, published scoping review reports have not often given detailed explanations of the steps used in performing the scoping review, nor have the researchers cited particular models. For example, Smith and Ma, Stahl, and Knotts provided details in their methods section about what databases they searched, keywords used, and inclusion and exclusion criteria, but gave little information about phases of evaluation or how the researchers made decisions throughout the process.¹² Other researchers publishing scoping review reports in LIS referenced using PRISMA, either the PRISMA-ScR like Tchangalova et al., or before PRISMA-ScR existed, PRISMA for systematic reviews, like Fournier and Sikora and Visintini et al.¹³ Additionally, Visintini et al. referenced following the Arksey and O'Malley framework, showing a precedence for this model in LIS. These studies were all focused on the topic and results of the scoping review rather than on the application of a scoping review framework to LIS.

Methods

For our research team, the first step after deciding to collaborate on a scoping review focused on a LIS-related topic was to learn more about scoping reviews (see the previous section) and to find and read examples of scoping reviews already published in the LIS literature. At the time of starting this project, we all worked for the same library, affiliated with a graduate health sciences university. As such, we were particularly drawn to LIS scoping reviews related to health sciences and related libraries.

We began meeting in October 2021, keeping notes of our meetings, discussions, and processes. While we aimed to meet for an hour every other week, some meetings were shorter, and some canceled due to scheduling conflicts, especially during particularly busy times of the academic term. We decided early in the project to take our time, being diligent in moving forward, but at a pace that would not be overwhelming given our other responsibilities. In each of our roles at the time,

research was not an expectation nor a requirement of our positions, so proactive prioritization of the project was critical.

We decided to follow Daudt, van Mossel, and Scott's outline for conducting a scoping review with a large team of researchers, which they based on the Arksey and O'Malley framework.¹⁴ Daudt, van Mossel, and Scott followed each of the six steps laid out by Arksey and O'Malley, but provided recommendations and enhancements for researchers working on larger teams. The six steps are as follows:

1. identifying the research question
2. identifying relevant studies
3. study selection
4. charting the data
5. collating, summarizing, and reporting the results
6. optional stage, consultation exercise

We also decided to pay close credence to the JBI guidance for conducting scoping reviews and the PRISMA model for scoping review reporting, PRISMA-ScR, because not only are these best practices for scoping reviews, but also the protocols the students and faculty members we served would use.¹⁵ The decision to use methods that originated in health sciences for this LIS scoping review was twofold. First, health sciences scoping review methodology is the most established. Second, in serving health sciences students and faculty members, we wanted to increase our knowledge of these processes to better assist them.

Identifying the Research Question

While Daudt, van Mossel, and Scott recommended flexibility in the research question, leaving open the opportunity to revise it as the research team became more familiar with the literature, we did want to start with a question in mind.¹⁶ While the objectives outlined above were certainly the driving forces behind the project, we also wanted the scoping review itself to be meaningful and applicable for us in our work. Peters et al., in the JBI manual for scoping reviews, recommended using the mnemonic Population, Concept, and Context (PPC), to guide development of the research question.¹⁷ After some discussion, we determined our starting research question would be: What is the role of academic libraries in open educational resource (OER) initiatives? (Note: Our report of the scoping review study itself is forthcoming as a separate publication.) The population established here is academic librarians, while the context is, similarly, academic libraries. The concept is OER. This is a current hot topic in LIS and of professional interest to each of our research team members.

Our initial searches on this topic netted more than 3,000 results. As we honed our topic, filters, and expectations, that number decreased. This is expected in a scoping review, where inclusion and exclusion criteria can be developed during the process as researchers become more familiar with the body of literature, rather than needing to be established beforehand.¹⁸

Identifying Relevant Studies

After we developed our initial research question, we constructed our search strategy. This stage of the scoping review is likely of particular interest to librarians and other information professionals because developing search strategies is an established part of information professional expertise and training. Along with a broad research question, best practice in scoping reviews is to perform a sensitive search, seeking a comprehensive and thorough review of what has been published.¹⁹ However, at the same time, the search strategy should be replicable and transparent.²⁰ Peters et al.

recommended getting search strategy input from a research librarian, and because every member of our research team is a research librarian, we felt comfortable with our level of adherence on this point.²¹

We started by listing the key concepts from our research question (academic libraries; open educational resources) and brainstorming synonyms and related terms. Table 1 shows the organization of our brainstorming.

Table 1. Key Concepts and Related Terms for Search Strategy

Concept 1	Concept 2	Concept 3
Open educational resources	Academic	Library
OER	University	Libraries
Open textbooks	College	Librarians
	Higher education	

From this, we developed the following search string, making use of truncation and Boolean operators:

("open education* resources" OR "OER" OR "open textbooks") AND (academic OR university OR college OR "Higher Education") AND (librar*)

We then set our sights on identifying the databases we wanted to search. We felt a bit limited here because at that time, all of us worked in the same library, and our library, which primarily serves graduate, health sciences students, did not have a wide variety of LIS-related databases available. We supplemented our institutional access with options available through public library systems and open-access platforms. We sought to search a variety of LIS and education-related databases, as well as searching platforms that index gray literature. We searched the following databases:

- ERIC (EBSCO)
- Information Science (Gale)
- Information Science and Technology Abstracts (ISTA) (EBSCO)
- LISTA (EBSCO)
- Library Science Database (ProQuest)
- Professional Development Collection (EBSCO)
- Education Database (ProQuest)
- Web of Science Core
- Digital Commons: Higher Education Commons
- Digital Commons: Library and Information Science Commons

We divided up the databases in a volunteer fashion: team members signed up for the databases they wished to search, with each team member searching at least one database. It made sense to group together the databases located on the same platform (e.g., all the EBSCO databases), and also for the team members located in the state whose public library access we were using to volunteer to search those databases.

As we searched, we found that to apply our search string successfully in each different platform, we needed to make some adjustments due to variations in the individual platform functionality. For example, in the Gale database, we searched using the keyword search function rather than the basic search function in order to engage a more focused search after the basic search turned up

too many results with little relevancy. Likewise, after some experimentation, we determined that we would use the title/abstract search in ProQuest and Web of Science databases. After initial searches in October 2021 revealed these kinds of questions and potential issues, we met again to discuss, confirming some parameters we had not previously specified. We resolved to run all the searches again with the refined parameters.

We purposely chose not to limit or filter by publication type and not to set specific date limitations, as we wanted to cast a wide net to inform our identification of patterns or themes in the published literature on the topic. Both Arksey and O'Malley and Daudt, van Mossel, and Scott recommended starting with a broad search.²² We did, however, limit it to only English results, as a point of practicality. We also did not re-run any searches after the second round of searching that took place in November 2021, so that was a natural end date limiter on our search results.

We tracked our searches and initial results in a spreadsheet that listed each database in the far left column, with subsequent columns titled as follows: Access (i.e., through what institution we could access the database), Librarian (i.e., team member in charge of that search), Search String, Number of Results, Comments, Applied Filters, and Search Link (i.e., the stable hyperlink for that search, when available). Digital Commons provided no mechanism for saving or recording a stable hyperlink to the performed searches, though the other platforms did.

As each team member ran their searches, we uploaded the results into a shared group library in the Zotero citation manager application. This allowed us to identify duplicates and easily share information across our team. Due to the comfort level and knowledge with building search strings and database searching that we brought to the project as an all-librarian research team, this phase of the scoping review took us about two months.

Study Selection

The study selection step was the most time-consuming part of conducting the scoping review. It involved honing our results even more by sorting through the search results from the previous step and reviewing them for relevance to our research question.

We employed a new-to-us online tool called Rayyan (www.rayyan.ai), which greatly facilitated this process. Rayyan has various levels of access at different price points and capabilities, but we used the basic free version of the software. This version allowed us to import our search results, sort them, and blind the list so that reviewers would not see the other reviewers' judgments on the same item. It also included buttons to include or exclude or label it as maybe for each article, with the ability to add a reason for the decision, notes, and even upload PDF full texts of each article. Per Peters et al., we based source selection on the feedback of at least two reviewers independently making determinations on each document.²³ We discussed conflicts, or disagreements, in a meeting of the entire research team and included or excluded by consensus in those cases.

Title and Abstract Review

We ended our searching, after removing duplicates, with 561 results, so tackling an item-by-item review of each of these felt overwhelming, especially because more than one person needed to review each item. This is where having a large scoping review research team is beneficial. We decided to divide our team into three groups, with two to three members in each group. The teams were distributed randomly using an online random team generator tool. Each group was responsible for a cursory title and abstract review of 187 articles, which we grouped alphabetically. For example, Group 1, made up of three team members, reviewed the first 187 articles when the articles were

sorted alphabetically by author's last name. We determined that for any items where there was disagreement (e.g., one reviewer voted to keep the item and the other voted to exclude), we could discuss in a team meeting whether to include or exclude. We discussed having each group with an odd number of reviewers to avoid conflicts, but ultimately decided it would be more productive to review fewer articles each and then discuss any conflicts as a group.

As part of this process, we determined initial exclusion criteria and the reason tag to use for each one in Rayyan. In this first round of review, we focused on relevancy to our research question and on usability of the source. To that end, we developed exclusion tags to apply to articles not about OER, not about academic libraries, not library-focused at all, not in English, and conference abstracts or proceedings. The exclusion criteria can be anything that makes sense to the team but should be standardized and agreed upon so that all reviewers use the same criteria.

When all the team members had a chance to review the titles and abstracts of their assigned articles, we met to unblind the review list and discuss 189 items that were labeled as conflicts or maybes. In all, the title and abstract review piece took our team about two months to complete.

Full Text Scan

In the full text scan phase, we scanned the full text of 299 articles, culled down from 561 before the title and abstract review. We created two new groups, one with four members and one with three members, assigned randomly. The members of each group scanned the full text of the same 150 articles. Again, we used Rayyan, blinded the list, and discussed conflicts in a meeting together. We used the same exclusion tags, except that we further specified that we would exclude book reviews and news items only if they were one page or less. We decided to keep longer documents of these types included for the time being.

After the abstract review, we knew we had items that we included only because we could not tell from the abstract alone whether the document was relevant or not, so we expected that the full text scan would exclude quite a few more items from our study. However, we only eliminated 83 articles in this phase, and due to increasingly busy schedules, it took us five months to do so. We were starting to feel frustrated and overwhelmed with the scoping review project, and so we regrouped to discuss our goals and whether anything had changed.

Article Labeling

We decided that before we jumped into full reading of articles, we would go through the articles again; this time labeling them with thematic tags. We felt that our scope was still too broad, and as we were engaging with the pool of literature, we were noticing themes, not all of which were applicable to our interests. Based on our observations, we compiled a set list of 15 thematic tags that included Affordability, Assessment, Collaborations, Commentary, Creating, Curating, Educating, Funding, Future-Casting, Hosting, Information Literacy, LIS Education, Policy, Repositories, Survey, and Textbooks.

We felt we did not need multiple eyes on each article for labeling purposes, so we were each assigned 31 articles to tag using the Label functionality in Rayyan. Each article could be assigned as many tags as appropriate. Tagging the articles based on the full text scans took us about two months. As might be expected, Textbooks and Affordability were the two most-used tags, but documents about textbook affordability programs were not what we found most interesting in the literature we were seeing.

At this point, about a year after we started the project, we decided to narrow our focus. We felt that four of our tags—Creating, Curating, Educating, and Funding—fit together into a category we called Advancement, that is, the work that academic libraries and librarians do to move the OER movement forward. This is where we wanted to focus our efforts. We revised our research question accordingly: What role do academic libraries play in the advancement of OER through their initiatives? We defined each of the four tags for consistency, and then we each looked through our 31 articles once more with only these four tags in mind. This narrowing of focus resulted in a final 129 articles to include in our study. In all, the study selection phase of our project took approximately 11 months to complete.

Charting the Data

After determining the 129 articles, all related to Advancement, to include in our study, we read each article in full and recorded details in a shared spreadsheet. We split the articles between the research team members, with everyone assigned approximately 19 articles to read in full.

We designed our data extraction spreadsheet based on the JBI recommendations, as well as adding our own data points as needed.²⁴ One difference we found between the recommendations that are best practice for scoping reviews in medical and health sciences disciplines versus social sciences like LIS is that we were not necessarily seeking out *studies* from the literature, but any published content. This meant that Daudt, van Mossel, and Scott's concern, in line with Levac, Colquhoun, and O'Brien's observation, that scoping reviews often neglect to assess the quality of the literature, was not a large factor in our project.²⁵ Most of the documents we read consisted of librarians reporting on their experiences in a descriptive narrative format, rather than the results of scientifically constructed research studies. Though the PRISMA-ScR checklist has a line item for "critical appraisal of individual sources of evidence," it also indicates that this step should only be included "if appropriate."²⁶ In the case of this project, it was not needed due to the variety of information sources used, nor was it applicable to our research questions. This also meant that some of the JBI data extraction recommendations were not applicable, including population/sample size and intervention type. We did list:

- article author
- article title
- name(s) of university and library discussed in the publication
- details from the article related to the four tags (Creating, Curating, Educating, and Funding), e.g., what the library or librarian did related to that concept
- type(s) of OER discussed
- additional comments

As recommended by Daudt, van Mossel, and Scott, after a brief pilot period of logging data collection, we met to assess and adjust this process to reflect the identification of needed changes.²⁷ This ensured that initial understandings were realigned, that any logging idiosyncrasies were corrected, and that newly identified avenues could be thoroughly explored in the final data collection product. At that time, we decided to split our general notes about each article column into four columns, one for each of the predetermined tags, so that we could record those details separately, as well as easily determine which articles addressed which concepts. We also determined we wanted to log any goal or motivation the library or librarian mentioned for pursuing the OER initiative discussed in the publication. It was common to see such information in the documents, and we wanted to be able to share any trends we found among these motivators.

Finally, we opted to add an additional column on the far left to note which research team members read and recorded each article.

We also included additional tabs in the workbook to log any background articles we found through our reading that we thought might be helpful, and any documents we came across that fit our scope but that our searches did not surface. Additionally, throughout this process, we continued to tag and discuss documents that did not fit our criteria but that had not yet been excluded.

The charting phase of our project took about 11 months to complete. Not only was it time-consuming to read each document carefully and log the data, but our project also unfortunately became a lower priority as our additional, everyday position responsibilities made it difficult to commit the needed time to our scoping review. This is a challenge for practitioner researchers like librarians who must balance their time between research endeavors and fulfilling the responsibilities of their daily role in the library. It was also challenging for us because we had taken this project on for ourselves, with no external motivators like tenure or promotion requirements inducing us to stay on track. Additionally, during this phase, we had one team member exit the project and five team members change jobs, though they remained on the research team.

Through our thorough review of each article, we identified 19 additional articles to exclude, primarily due to either not providing information about what academic libraries and librarians were doing for OER, or for reporting on activities that fell outside our four tags. We ended this phase of our project with 110 articles to include.

Collating, Summarizing, and Reporting the Results

In this phase of our project, we used the chart we created in the previous phase to identify trends related to the 110 documents included in our study. Arksey and O'Malley noted that in a scoping review, the goal is to "present an overview of all material reviewed," at least as far as the material in the final list of included documents.²⁸ We therefore determined a list of six data points we wanted to explore from the articles, each falling into one of two categories: distribution or thematic. We used a volunteer process to divide up this work, with members of our research team noting the data point on which they would like to work. We created a new, shared spreadsheet with a tab for each data point where we recorded and summarized the trends we found among the data.

Throughout this, we kept focus on our revised research question, seeking to answer it with the data. We added new research questions during this phase as well, now having a better understanding of the literature and what interested us within it. Daudt, van Mossel, and Scott had similarly modified their research question in this phase, stating, "By this point, we knew we were not answering our initial question."²⁹ While we *were* answering our initial question, we were also answering questions we didn't realize we had at the beginning, such as *who* (i.e., which academic libraries are playing the largest role in the advancement of OER through their initiatives?) and *why* (i.e., what are the primary motivators behind academic libraries playing a role in the advancement of OER?).

In reporting the results, we focused on the PRISMA-ScR checklist, writing up a report that would meet each applicable checklist item, including summarizing the evidence and noting limitations to the study. One checklist item that was not applicable, as noted earlier, was "critical appraisal of individual sources of evidence."³⁰ While this current article reports on our collaborative process specific to scoping reviews in LIS, our report of the scoping review study itself is forthcoming as a separate publication.

Consultation

Daudt, van Mossel, and Scott listed this last step as optional in their framework.³¹ Arksey and O'Malley explained this phase as providing room for "practitioners and consumers" to "contribute to the work" being done by researchers.³² This is certainly a valuable opportunity for scoping review studies in which the researchers are not also practitioners. However, our research group is made up of practicing librarians doing research on the side. As such, we determined that it was not necessary for us to take this final, optional step.

Discussion

Our first objective in this project was to become more familiar with and increase our expertise regarding scoping reviews. It is important that librarians be familiar with research synthesis processes, as we often not only participate in literature review teams but are expected to develop resource guides and assist library patrons with these processes, even beyond the literature searching phase.

We gained a better sense of the emotional and logistical experiences of conducting a scoping review. We found time management to be a significant challenge in the process, as the team balanced the project with everyday librarian responsibilities (e.g., reference, instruction, library management) and other work-life changes throughout the two-year timeline. The adjustments to the timeline challenge the potential misconceptions that scoping reviews are fast or easily completed, as Mak and Thomas illustrated that a scoping review requires considerable time for reflection, communication, and iterative examination.³³ This finding provided insight into how students and faculty may experience the scoping review process, as they manage life circumstances, course or teaching workloads, and other obligations. Hannake discussed how students can be ill-prepared and often overwhelmed when experiencing the review process, working under strict assignment deadlines that can affect the quality of the project, which can be an area of intervention and support from academic librarians.³⁴

We also have a much better sense of the steps involved in scoping reviews, the tools available, and the formal standards, recommendations, and reporting structures necessary for scoping reviews. Just as librarians often teach and promote the use of citation managers, literature review tools like Rayyan are key to the success of those instruction and resource development efforts. By participating in this project, each librarian has acquired deeper knowledge of the Rayyan software, which can be shared in library and research instruction and included in more detailed resource guides for students and research faculty. Following this project, we are better equipped and educated to assist library patrons with scoping review projects and feel more confident doing so.

Our second objective was to document and outline a scoping review process applicable to the library science field. We followed Daudt, van Mossel, and Scott's steps for conducting a scoping review, which they adapted from Arksey and O'Malley.³⁵ We also paid close attention to the JBI recommendations and the PRISMA-ScR reporting structure.³⁶ Much of this was developed with health and medical research (scientific research) in mind, so we were unsure at the start of our project how much would be applicable to LIS literature (social research). However, we chose to use the scoping review processes developed with health and medical research in mind because one of our objectives in undertaking the project was to be able to better support students and faculty members working on scoping reviews at a health sciences institution. Scientific research focuses on physical phenomena, which are typically able to be measured in empirical ways, limiting variables

and bias, while social research focuses on phenomena in human behavior, which are more fluid, with more variables and biases involved.³⁷

Despite these differences, we found that the models used for scoping reviews in medical and health sciences research are applicable for LIS literature as well, with some minor adaptations and adjustments as needed. For example, we did not need to seek out a research librarian to help us with our search strategy because everyone on our research team is a research librarian. Most LIS scoping reviews will likely also inherently have a research librarian on the team, and therefore teams will not need to put extra effort in on this point. LIS researchers are well-suited for the nuances involved and expertise needed in the identifying relevant studies phase of a scoping review project. Also, the kinds of documents we included were broader than when dealing with empirical research. While many of the documents we found were articles in which librarians reported on the initiatives at their libraries (descriptive narratives), we also included substantial news items and summaries of discussions that happened at conferences and forums. These documents gave us valuable insight into answering our research questions. Often, we were not working with original research reports or assessing data collection or analysis, as is more commonly done within the health sciences, and so it was not necessary for us to assess the quality of the documents we included or critically appraise the evidence therein.

As mentioned previously, intentionality in balancing time and prioritizing the scoping review project is also a key takeaway. This is likely more challenging for practitioner researchers, who have competing responsibilities, including everyday job duties in libraries. Librarians who are considered faculty and have research responsibilities built into their job descriptions may have an easier time dedicating energy to a scoping review project and completing it in a quicker timeframe than we were able to manage. One strategy librarians might incorporate to better manage a scoping review workflow is breaking the six steps into smaller tasks and setting hard deadlines for team members to complete those tasks. For example, if we had divided the abstract and full text review processes into smaller, weekly assignments, we could have maintained momentum and completed those steps in a shorter time frame. Furthermore, speaking with someone else who has already completed a scoping review project could have been helpful before undertaking our own. Documenting our experiences and insights into the processes will hopefully inform other practitioner researchers on how to shape their own project workflows and implementation in the future.

Conclusion

We found the best practices for scoping reviews established for medical and health sciences to be applicable to LIS scoping reviews as well, though considerations like document type and time management have more particular implications in LIS. Participating in a scoping review project as a researcher also helped us as librarians be better educated and situated to assist library patrons with similar projects.

We recommend that LIS practitioner researchers use the model for scoping reviews developed for health and medical research, adjusting as necessary, especially if the members of the research team play any role in assisting researchers from the health sciences or medical fields. Following these best practices increases the rigor and quality of scoping reviews in LIS and helps librarians better understand the processes their patrons may be using for them.

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