@**()**(\$)

The Relevance of Health Equity to the Evidence Synthesis Process: Results From a Quantitative Survey of Health Information Professionals

Stacy Torian, MLIS, MAa, Stephen Maher, MSIS, LMSWb

^aAssistant Curator: Librarian for Health Sciences, Bobst Library, New York University, New York, New York, https://www.orcid.org/0009-0002-9859-5075, stacy.torian@nyu.edu

^bAssistant Curator: Librarian for Social Work & Psychology, Bobst Library, New York University, New York, New York, http://orcid.org/0000-0002-6628-6756, stephen.maher@nyu.edu

Cite as: Torian S and Maher S. The Relevance of Health Equity to the Evidence Synthesis Process: Results From a Quantitative Survey of Health Information Professionals. Hypothesis. 2025;37(2). doi:10.18060/28655

CC BY-NC 4.0 DEED Attribution-NonCommercial 4.0 International. Authors own copyright of their articles appearing in *Hypothesis*. Readers may copy articles without permission of the copyright owner(s), as long as the author(s) are acknowledged in the copy, and the copy is used for educational, not-for-profit purposes. For any other use of articles, please contact the copyright owner(s).

Abstract

Background: In their work as research collaborators, health information professionals often contribute both extensive knowledge of evidence synthesis methods and an engaged awareness of the sociopolitical context in which evidence synthesis takes place. Within this context, researchers are increasingly being encouraged to demonstrate how their work will advance health equity. Our study sought to determine how confident health information professionals feel discussing health equity in an evidence synthesis context and how relevant they think it is to the process.

Methods: Using the email lists of U.S.-based and international library organizations, the authors conducted a quantitative survey of health information professionals with experience working on evidence synthesis projects (e.g., systematic or scoping reviews) within the past 10 years. The authors used the survey software Qualtrics to calculate descriptive statistics for each of the survey questions and analyze correlations between responses to different questions.

Results: While a majority of health information professionals surveyed exhibited both familiarity with health equity as a concept and a belief in its relevance to evidence synthesis, far fewer were highly comfortable discussing health equity with researchers. Only 6% of participants had used the PRISMA-Equity Extension (a health equity-centered evidence synthesis tool) in a systematic review.

Discussion: The study results suggest that a number of health information professionals would benefit from training on health equity-centered evidence synthesis tools and more experience having health equity-related research discussions.

Introduction

"Evidence synthesis" is a term that describes different methods of identifying, evaluating, and analyzing research literature on a topic¹. One of the most common types of evidence synthesis is the systematic review. Recognized as the "best known type of review"², the systematic review presents a synthesis and evaluation of all the available literature on a research topic, along with a suggested course of action in the realm of policy or practice^{3,4}. Systematic reviews require a well-defined research question or topic, a research protocol, a comprehensive literature search strategy, explicit criteria regarding what literature will or will not be included, careful literature appraisal and synthesis, and a detailed reporting of the reviewers' methods and findings⁵. Systematic reviews are a critical component of evidence-based practice (EBP), an approach to healthcare that emphasizes "the integration of best available evidence, clinical expertise, and patient values and circumstances" in the context of clinical practice.

For over a decade, the National Academy of Medicine (formerly the Institute of Medicine), the Cochrane Handbook for Systematic Reviews of Interventions, and the Agency for Healthcare Research and Quality have recommended that research teams conducting systematic reviews seek the support of librarians, information specialists, or other expert searchers when crafting literature searches^{5,7,8}. While researchers often consult health information professionals for assistance with literature searching, health information

professionals contribute more than search strategies to the evidence synthesis process. Those additional contributions include educating research teams on how evidence syntheses are conducted and facilitating the planning of the study methodology⁹.

Although systematic reviews are recognized as an important source of synthesized research, researchers and policymakers have expressed concerns about the absence of an equity perspective in the reporting of systematic review results and recommendations¹⁰⁻¹³. The World Health Organization (WHO) has defined equity as "the absence of unfair, avoidable or remediable differences among groups of people, whether those groups are defined socially, economically, demographically, or geographically or by other dimensions of inequality (e.g. sex, gender, ethnicity, disability, or sexual orientation). 14" An equity perspective examines how the interventions recommended in the review could address unfair inequalities in health outcomes¹⁵. Such a perspective also requires researchers to think critically about the review topics they choose, the types of literature they review, the details they report in their findings, and the environmental context within which any interventions they recommend might take place¹⁶⁻¹⁸. The study that follows is an attempt to determine what views health information professionals hold on the subject of health equity in evidence synthesis, to what extent they engage in discussions about this subject with researchers, and their level of comfort with these types of discussions. It begins with a literature review on the role of health information professionals and health equity considerations in evidence synthesis, followed by the presentation of the study results, discussion of the study findings, and suggestions for further research and reflection.

Literature Review

The role of health information professionals in evidence synthesis

Some of the earliest examples of librarians' involvement in evidence syntheses occurred in the 1990s, with an increase in the use of systematic reviews in medicine to combine the results of clinical trials¹⁹. These instances correlated with the beginning of electronic publishing, and the emergence of the Internet as a medium for disseminating information^{20,21}. Specifically with respect to biomedical literature, the launch of PubMed in 1997 provided researchers, via the Internet, the ability to leverage the National Library of Medicine's online database, MEDLINE, to search its comprehensive bibliographic index of medical articles (Index Medicus)²². Librarians were the early adopters of these online databases, and clinicians and researchers recognized their expertise with indexing practices and familiarity with controlled vocabularies. They valued the librarian's skills for facilitating their approaches to meta-analyses and other evidence synthesis projects²⁰.

As the electronic publishing of articles proliferated, so too did the coverage of online databases to index and aid researchers in the searching and retrieval of this material. This would contribute to an increase in the number of systematic reviews²³. With this increase came the need for guidelines for researchers to follow in conducting a systematic review and other evidence syntheses. These guidelines, including those from the Cochrane Collaboration, the National Academy of Medicine, and the Joanna Briggs Institute, identified librarians as collaborators either for assisting in the development of search strategies for retrieving relevant materials or in managing the methods process^{5,24,25}. Arksey and O'Malley - the authors of the

original methodological framework for scoping reviews - made a similar recommendation, suggesting that non-librarians may not be able to design a sufficient search strategy for evidence syntheses²⁶.

In the mid-2010s, researchers started to test the merits of these recommendations within their respective disciplines. In general internal medicine, librarian co-authorship in systematic reviews correlated with higher quality search strategies²⁷. In pediatrics, researchers considered search strategies conducted by librarians to be more reproducible^{28,29}. There have also been studies advocating for the involvement of librarians in evidence syntheses in education³⁰ and dentistry³¹.

As their reputations for being "natural advisors and partners"³² on evidence syntheses have spread, librarians have investigated their roles and the challenges that come from these collaborations. One of the challenges librarians and information professionals have identified is that as they accumulate experience working on evidence syntheses, they find themselves educating researchers on these methodologies in addition to collaborating with them on their search strategies³³. Another challenge centers on authorship and acknowledgement of the contribution librarians and information professionals provide in evidence syntheses. Despite the recommendations and evidence of the benefit of their contributions, librarians have found that their efforts in the search process can be perceived as invisible labor³⁴ and can go unrecognized^{35,36}.

As a result of these challenges, many librarians have developed service models for managing demand and researcher expectations^{37–42}.

Health equity and evidence synthesis

Over the years, scholarship on health equity and evidence synthesis has evolved in parallel with the broader discourse on health equity in the field of public health. In their 2007 paper, Cochrane's Elizabeth Waters and Rebecca Armstrong announced the beginning of a Cochrane Review Group for Public Health and Health Promotion, asserting that the group would "help ensure that reviews will be oriented towards building evidence for equity and reducing inequalities and best meet the needs of decision-makers, practitioners and consumers.⁴³" During roughly the same time period, in 2003, public health researchers Timothy Evans and Hilary Brown introduced PROGRESS, an acronym that stands for multiple "socially stratifying forces" that have consequences for health equity, namely "place of residence, religion, occupation, gender, race/ethnicity, education, socioeconomic status, and social networks and capital. 44" PROGRESS can assist researchers in highlighting demographic characteristics and socioeconomic circumstances that can impact the effectiveness of interventions⁴⁵. Recognizing both the potential and the limitations of this tool, a group of researchers mapping studies on the health of young people developed an enhancement of PROGRESS in 2008 called PROGRESS Plus to encompass personal factors that can lead to inequitable health outcomes⁴⁶. Though not used consistently in systematic reviews, both PROGRESS and PROGRESS Plus continue to be recognized as helpful tools for presenting and assessing systematic review results from a health equity standpoint^{45,47–49}.

Another public health development that greatly influenced scholars promoting health equity in evidence synthesis was a 2008 report by the World Health Organization's Commission on

Social Determinants of Health (CSDH) urging governmental stakeholders and international organizations to take substantive steps to ensure that under-resourced communities have equitable access to the resources that will help them maintain good health⁵⁰. In a 2010 paper acknowledging the CSDH's call, Tugwell et al. provided guidance to public health researchers seeking to incorporate a health equity perspective into their systematic reviews. Their recommendations included creating a logic model to envision how particular interventions might impact specific groups, taking into account the environmental context within which the interventions might be implemented, using PROGRESS Plus to decide which outcomes are most important to assess for people experiencing health inequities, and considering the inclusion of study types beyond the randomized control trial⁵¹.

In the decade following the formation of the CSDH and the publication of the 2010 paper, guidance on how to incorporate health equity considerations into the evidence synthesis process became more detailed and formalized. In 2012 (a year after the acceptance of the Rio Political Declaration on Social Determinants of Health at the World Conference on Social Determinants of Health)⁵², Welch et al. published the PRISMA-Equity Extension (PRISMA-E), a protocol to guide researchers doing equity focused-systematic reviews on how to report their evidence synthesis results in a way that centers health equity concerns^{53,54}. PRISMA-E is based on the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) checklist, one of many protocols and tools researchers use to structure and transparently report the methods and results of their systematic reviews. In subsequent years, the 2013 paper "Health equity: evidence synthesis and knowledge translation methods" and the Cochrane Handbook's chapter on health equity published in 2020⁴⁷ provided further guidance. The Cochrane chapter is referenced in the Joanna Briggs Institute (JBI) Manual for Evidence Synthesis, alongside a statement urging authors to "consider Equity, Diversity and Inclusion in the planning and conduct of systematic and scoping reviews.55"

Despite this guidance, some researchers still struggle to bring an equity perspective to their systematic reviews. Analyses conducted within the past several years have revealed inconsistent reporting of intervention effects by demographic or socio-economic factors in groups of systematic reviews on cataract¹³, COVID-19⁴⁹, and loneliness and social isolation⁴⁸. One issue is that the individual studies included in reviews do not always include population data related to most of the PROGRESS or PROGRESS Plus factors¹³. Secondly, even when such data are included, systematic reviewers do not always consider these factors in their analyses⁴⁸. As public health researchers have noted, not acknowledging how an intervention's impact might differ across demographic and socio-economic groups could lead systematic reviewers to recommend public health interventions that actually amplify existing inequities without benefiting the populations who are already experiencing disproportionately negative health outcomes^{49,56}.

In recognition of the importance of health equity in evidence synthesis, the Cochrane Equity Methods Group authored a 2023 position statement stating, "We are committed to ensuring that all Cochrane authors consider health equity in their reviews.¹⁷" A November 2024 Cochrane webinar titled "Equity in all Cochrane reviews," further emphasized this objective. There the presenters recommended that researchers consider an equity perspective not only for "equity-focused reviews" but also for reviews "aimed at the general population.⁵⁷"

As health information professionals are more sought after in the production of evidence syntheses, they are well-positioned to introduce or encourage researchers to bring an equity perspective to their systematic reviews, particularly where it concerns research question development, literature searching, and the use of tools such as PROGRESS Plus or PRISMA-E. The purpose of this study was to determine how familiar librarians are with health equity in evidence synthesis and how confident they feel introducing or discussing an equity perspective during meetings with researchers. Our primary goal is to promote dialogue about health equity in evidence synthesis and related methodological considerations among health information professionals in the health sciences.

Methods

The authors arranged the survey into three sections. The first section of the survey, which included a statement from the authors' Institutional Review Board (IRB), sought to identify how experienced the participant was in collaborating in evidence synthesis projects. If they had been involved with one within the past 10 years, they advanced to the subsequent sections. In the second section, the authors asked participants to share which supporting documents they used or knew of in these projects. In the third section the authors inquired about the participants' familiarity with the concept of health equity. The authors provided the definition of health equity offered by Burford et al. in 2013: "the absence of avoidable and unfair inequalities in health, and social determinants of health.¹⁵" This definition cites contributions from Whitehead (1992)⁵⁸, Bosch-Capblanch et al. (2012)⁵⁹, and the World Health Organization (2011)⁵². It was in this third section that the authors assessed the participants' familiarity with the PRISMA-Equity Extension.

The authors developed their survey questions (see Supplemental Materials) in Qualtrics⁶⁰ and opened the survey for completion from February to March 2024. After the completion period, the authors exported the data from Qualtrics to Google Sheets for initial tabulation and calculations and, finally, the construction of the tables and graphs in this study.

The authors recruited participants anonymously through various U.S.-based professional associations, including the Medical Library Association (via the MLA Connect newsletter and the Systematic Review Caucus, Nursing and Allied Health Caucus, New Members Caucus, Latinx Caucus, African American Medical Librarians Alliance Caucus, and Social Justice Caucus email lists) and the Association of College and Research Libraries (ACRL). The authors also included international groups like the International Federation of Library Associations and Institutions (IFLA) and the non-profit organizations The Cochrane Collaboration and The Campbell Collaboration, whose missions focus on the promotion and dissemination of evidence-based research. Health information professionals who subscribe to the newsletters and email lists of these organizations received the authors' solicitation to participate in the survey. Three hundred twenty participants completed the survey. Out of these, 97% (310) of the participants acknowledged having been involved in an evidence synthesis (systematic review, scoping review, meta-analysis) within the past 10 years, an indication that the authors recruited participants through appropriate professional organizations.

We did not use any supporting documents

1%

Results

The authors used Qualtrics to calculate descriptive statistics for the answers from the 310 survey participants. The statistics include four cross tabulations, each comparing survey participants' answers to one question with their answers to another question. Because of rounding, there are situations where the total percentage breakdown does not equal 100% (e.g., Figure 2). The data is presented in summary form below and through the graphs and tables that follow the summary.

The authors, informed by their own experience as health sciences librarians, approached this study with the belief that a research consultation for an evidence synthesis project is often the best opportunity a health information professional has to offer their methodological expertise and to talk with researchers about the role of health equity in the evidence synthesis process. To gain perspective on the survey participants' methodological expertise, the authors provided a list of well-known evidence synthesis methodology documents to measure their familiarity with said documents. As noted in Figure 1, a significant portion of survey participants have used the evidence synthesis supporting documents listed in the survey (i.e., Campbell, Cochrane, Joanna Briggs Institute, and PRISMA). Forty-seven participants mentioned 49 additional resources (Table 1; See Supplemental Materials). As noted in Figure 2, roughly 84% of the 310 participants indicated that they had taken the initiative to suggest these supporting documents or that both they and the research team had suggested them, as opposed to 12% who indicated that the research team alone had suggested the documents (the remaining 5% did not answer the question).

We did not use any Campbell systematic Reporting Items for Systematic Reviews and Which supporting documents did you refer to for these evidence syntheses? (Total Responses: 707) Response Count Percentage Preferred Reporting Items for Systematic Reviews and 246 35% Meta-Analyses (PRISMA) Cochrane Handbook for Systematic Reviews of Interventions 215 30% Joanna Briggs Institute (JBI) Manual for Evidence Synthesis 148 21% 47 Other 7% 6% Campbell Systematic Reviews: Policies and guidelines 44

Figure 1. Which supporting documents did you refer to for these evidence syntheses?

7

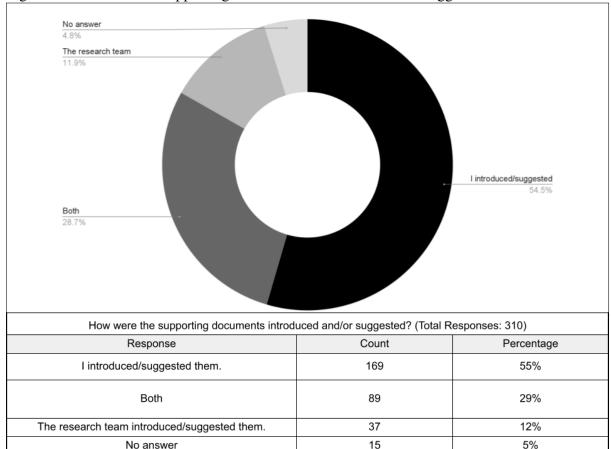
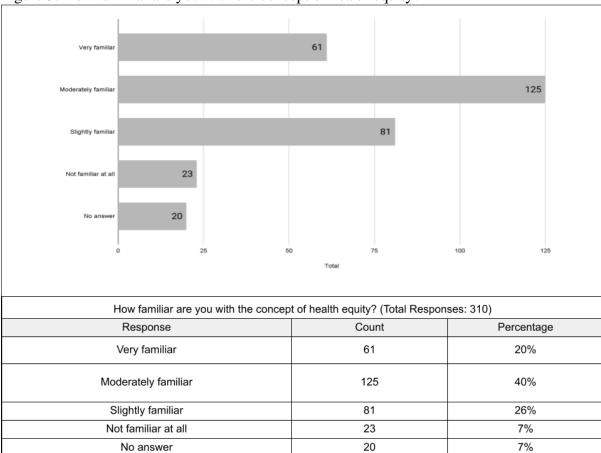


Figure 2. How were the supporting documents introduced and or suggested?

Considered in aggregate, these responses indicate a wide range of evidence synthesis methodological knowledge among the survey participants. Notably, three of the four supporting documents mentioned in the survey contain chapters on equity (Cochrane, JBI)^{47,55} or offer supplemental documentation related to equity (PRISMA)⁵³.

In order to take advantage of the opportunity that an evidence synthesis research consultation provides for discussing health equity with researchers, health information professionals must be conversant with the concept of health equity. After being provided with a definition of health equity, 60% of the survey participants indicated that they were moderately familiar or very familiar with the concept of health equity, while 26% were slightly familiar, 7% were not familiar at all, and 7% did not answer (Figure 3). Additionally, 42% of participants have discussed health equity with researchers during evidence synthesis collaborations (Figure 4). In most cases (75%), the research team initiated the discussions, but in 21% of cases the health information professionals initiated the discussions (Figure 5). As noted in Correlation Chart 1, health information professionals who were very or moderately familiar with the concept of health equity were more likely to have had discussions about the topic during research collaborations on evidence synthesis than were those who were only slightly familiar or unfamiliar with the concept.



7%

131 Yes 159 No 20 No answer 0 50 100 150 200 Total In your work collaborating with researchers on evidence syntheses have you ever had discussions about health equity? (Total Responses: 310) Response Count Percentage Yes 131 42% No 159 51%

Figure 4. In your work collaborating with researchers on evidence syntheses, have you ever had discussions about health equity?

Correlation Chart 1.

No answer

Question 5 Response to In your work collaborating with	Question 4 Response to How familiar are you with the concept of health equity?							
researchers on evi dence syntheses have you ever had discussions about health equity?		miliar all	_	htly iliar		erately illiar	Very fa	amiliar
Yes	1	1%	16	12%	65	50%	49	37%
No	22	14%	65	41%	60	38%	12	8%

20

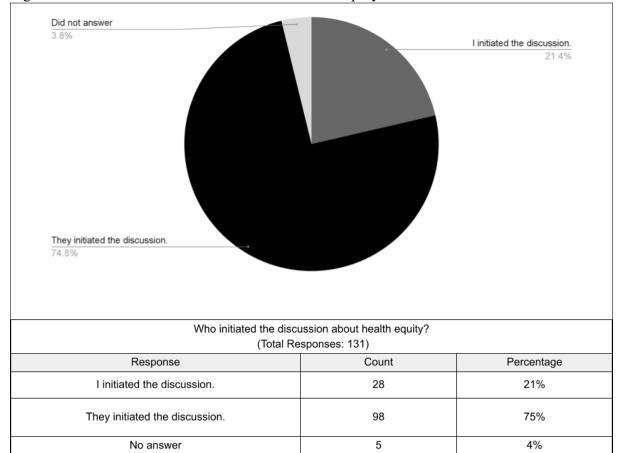


Figure 5. Who initiated the discussion about health equity?

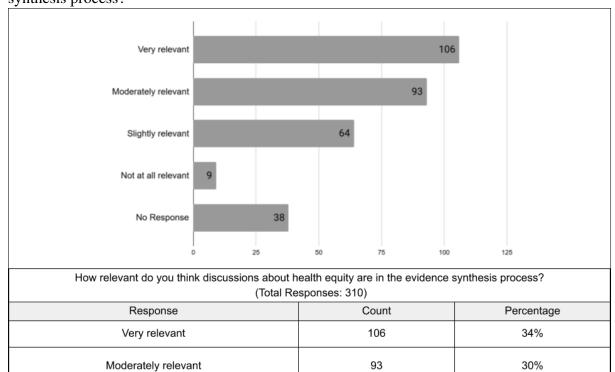
Regarding the relevance of health equity to the evidence synthesis process, nearly three-quarters (64%) of the survey participants believe that health equity discussions are moderately or very relevant to the evidence synthesis process, while 24% believe they are only slightly relevant or not relevant at all (12% did not respond to the question) (Figure 6). As shown in Correlation Chart 2, participants who were moderately or very familiar with the concept of health equity were more likely to indicate that discussions about health equity were very relevant to the evidence synthesis process. Additionally, participants who thought health equity was very relevant to the evidence synthesis process were more likely to have had discussions about health equity with researchers (Correlation Chart 3).

21%

3%

12%

Figure 6. How relevant do you think discussions about health equity are in the evidence synthesis process?



64

9

38

Correlation Chart 2.

Slightly relevant

Not at all relevant

No response

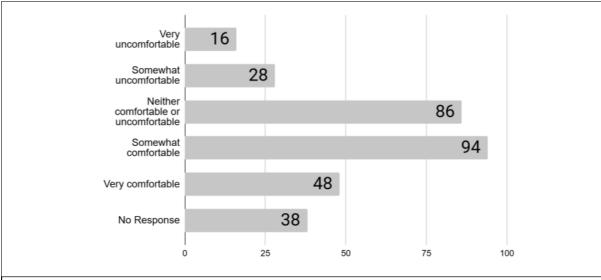
Question 4 Response to How	Question 6 Response to How relevant do you think discussions about health equity are in the evidence synthesis process?									
familiar are you with the concept of health equity?		at all vant	_	htly vant		erately vant		ery vant	No Ar	No Answer
Not familiar at all	4	17%	9	39%	5	22%	3	13%	2	9%
Slightly familiar	2	2%	25	31%	31	38%	17	21%	6	7%
Moderately familiar	3	2%	27	22%	38	30%	51	41%	6	5%
Very familiar	0	0%	3	5%	19	31%	35	57%	4	7%

(Corre	lation	Chart	3
١,		1411011	CHAIL	·).

Question 5 Response to In your work collaborating with	Question 6 Response to How relevant do you think discussions about health equity are in the evidence synthesis process?								
researchers on evidence	(Total Responses : 272 38 No Responses)								
syntheses have you ever had discussions about health equity?		at all vant	Slightly relevant		Moderately relevant		Very relevant		
Yes	1	1%	18	14%	38	30%	69	55%	
No	8	5%	46	32%	55	38%	37	25%	

Despite the relatively high percentage of participants indicating familiarity with the concept of health equity and affirming the relevancy of health equity to the evidence synthesis process, only about half of the participants surveyed (46%) feel very or somewhat comfortable discussing health equity with researchers (Figure 7). About 28% are neither comfortable or uncomfortable, while 14% are somewhat or very uncomfortable. Furthermore, even though 79% of the participants have used the PRISMA reporting guideline, 52% were not at all familiar with the PRISMA-Equity Extension and only 6% had used it in a systematic review (Figure 8). As expected, those who were moderately or very familiar with the concept of health equity were more likely to be somewhat comfortable or very comfortable discussing the concept with researchers (Correlation Chart 4).

Figure 7. How comfortable are you discussing health equity with researchers?



How comfortable are you discussing health equity with researchers? (Total Responses: 310)									
Response Count Percentage									
Very uncomfortable	16	5%							
Somewhat uncomfortable	28	9%							
Neither comfortable or uncomfortable	86	28%							
Somewhat comfortable	94	30%							
Very comfortable	48	16%							
No response	38	12%							

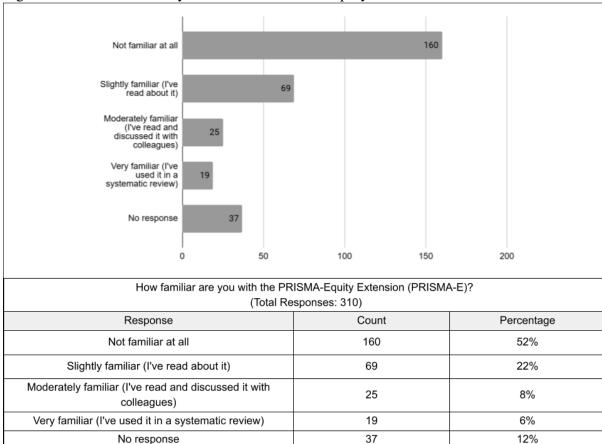


Figure 8. How familiar are you with the PRISMA-Equity Extension?

Correlation Chart 4.

No response

Question 4	Question 7 Response to How comfortable are you discussing health equity with researchers?									
Response to How familiar are you with the concept of health equity?	Very uncomfortable		Somewhat uncomfortable		Neither comfortable or uncomfortable		Somewhat comfortable		Very comfortable	
Not familiar at all	5	24%	5	24%	10	48%	0	0	1	5%
Slightly familiar	10	13%	10	13%	34	45%	19	25%	2	3%
Moderately familiar	1	1%	11	9%	36	30%	57	48%	14	12%
Very familiar	0	0%	2	4%	6	11%	18	32%	31	54%

Discussion

The survey participants who were involved in an evidence synthesis project within the past 10 years (310) exemplified the knowledge and experience reflected in the aforementioned guidelines that identify librarians as collaborators. Less than 3% of the participants reported

not using any of the examples of supporting documents provided in the survey. Seventy-nine percent of participants referred to PRISMA in their collaboration on evidence syntheses, the most frequently used supporting document. In addition to demonstrating their familiarity with the supporting documents provided in the survey, the participants provided a substantive list of "Other" examples (see Supplemental Materials, Table 1). These "Other" examples, created or authored by organizations or individuals in North America and Europe, underscore the global nature of evidence synthesis work.

Prior studies have shown how the role of librarians and information professionals has evolved from designing search strategies to educating researchers in evidence synthesis methodologies³³. The participants verified this observation, indicating that in 55% of their experiences, they alone introduced or suggested the supporting documents to the research team (as shown in Figure 2). This is consistent with the findings of Logan (2023) who found that, among a group of 42 researchers who had co-authored reviews with librarians, 64.3% were motivated by librarians' methodological expertise³².

The participants' responses to these questions confirmed the authors' hypothesis, that because health information professionals are more sought after in the production of evidence syntheses, they could be well-positioned to introduce or encourage researchers to bring an equity perspective to this work. When asked about health equity, 86% of the participants had some familiarity with the concept (as shown in Figure 3) and when asked whether they had had discussions about health equity with researchers, 42% said yes (as shown in Figure 4). In those discussions about health equity, the participants said the researchers mostly initiated the topic. While this finding could reflect the fact that health information professionals are often not the lead researchers on evidence synthesis projects, it could also suggest that there is more to be done to increase their understanding of the concept of health equity and its role in evidence synthesis.

It is notable that 42% of participants provided a neutral response to the comfortability question (28%) or expressed some level of discomfort with discussing health equity with researchers (14%) (as shown in Figure 7). The level of comfort with discussing the concept could play a role in the willingness to initiate health equity discussions with researchers. While the level of comfort could be related to knowledge or understanding, it could also be due to factors indiscernible from the survey questions.

Overall the results suggest possible connections between a health information professional's thinking about the relevance of health equity to evidence synthesis and their experience discussing health equity with researchers. The participants who thought health equity was very relevant to evidence synthesis were more likely to have had discussions about health equity with researchers (Correlation Chart 3). Similarly, participants unfamiliar with the meaning of health equity were more likely to feel uncomfortable discussing health equity with researchers (Correlation Chart 4).

The fact that 52% of participants described themselves as "not at all familiar" with the PRISMA-Equity Extension presents an opportunity for health information professionals. Given their role in methodology discussions, it is possible that their mentioning PRISMA-E during these discussions could have a meaningful impact on incorporating health equity into this research. This is not to suggest that PRISMA-E is the only supporting document that

considers health equity. Other tools, like PROGRESS Plus, could be considered. Health information professionals may also take the initiative, in collaboration with their research teams, to develop their own supporting documents.

Limitations

Although the authors solicited participants from international professional organizations, the survey was not designed to identify the geographic location of the participants. The quantitative nature of the survey also restricted any possibility for nuance, particularly around the questions about discussions with research teams. While asking who initiated the health equity discussion is important, missing from this survey are details about the quality and dynamics of these discussions with research teams. A possible direction for future research would be to conduct qualitative interviews with health information professionals about experiences collaborating on evidence synthesis and the subject of health equity. This approach may address the limitation of human memory our participants may have had in recalling their experiences collaborating in evidence syntheses.

Conclusion

Health information professionals have a history of making meaningful contributions to evidence synthesis, and this study illustrates that they understand the potential of bringing a health equity perspective to this work. Their experiences as methodological advisors provide a solid foundation for developing or deepening expertise in equity-centered evidence synthesis methods and tools such as PRISMA-E. While 36% of the participants in this study had some level of familiarity with the health equity-focused evidence synthesis tool PRISMA-E, slightly over half (52%) did not, which suggests that librarian training related to this tool would be beneficial. A critical action moving forward will be staying up to date on discussions about tools like PRISMA-E, as well as other tools for incorporating health equity considerations into the evidence synthesis process, such as PROGRESS and PROGRESS Plus. Staying up to date could involve active participation in meetings where equity-centered evidence synthesis tools and methods are being discussed and debated, such as public webinars sponsored by medical research organizations or library organizations.

The finding that 42% of the study participants have had health equity discussions with research teams suggests that a substantial number of researchers would be open to health equity-related evidence synthesis guidance conveyed by health information professionals. Health information professionals could offer this guidance through research consultations and during library instruction sessions. With their knowledge of information sources, health information professionals are particularly well positioned to convey the guidance that pertains to literature searching (such as encouraging researchers to take an expansive view of what constitutes legitimate research evidence).

As health information professionals continue to collaborate on evidence synthesis projects, it is important that they be comfortable communicating about health equity with evidence synthesis researchers. The finding that 72% of study participants are less than "very comfortable" with discussing health equity with researchers is concerning and suggests that health information professionals might benefit from training on how to approach the topic of health equity during research discussions.

The literature supports incorporating health equity considerations and values into every stage of the evidence synthesis process. By obtaining training on equity-centered evidence synthesis methods and bringing a health equity perspective to their collaborations with researchers, health information professionals can strengthen their knowledge base and support the public good.

Corresponding Author

Stacy Torian, Librarian for Health Sciences (Allied Health), New York University Libraries, stacy.torian@nyu.edu

Ethical Declarations

Because it involved minimal risk of harm to the survey participants, our study received an exemption from U.S. federal policy on human subjects research via our Institutional Review Board. To ensure the privacy of participants, the authors did not collect personal identifiers or geographic location data. The Institutional Review Board of New York University approved the study on December 18, 2023 (Study IRB-FY2024-7965).

Data Availability Statement

Data are summarized in the tables and figures.

CRediT Statement

Stacy Torian: Conceptualization, methodology, analysis, data collection, writing, manuscript revision

Stephen Maher: Conceptualization, methodology, analysis, data visualization, writing, manuscript revision

Both Torian and Maher are lead authors of the manuscript.

References

- 1. Cochrane [Internet]. London: Cochrane; 2000-2024. Evidence synthesis what is it and why do we need it?; 2023 May 4 [cited 2024 Nov 6]. Available from: https://www.cochrane.org/news/evidence-synthesis-what-it-and-why-do-we-need-it
- 2. Grant MJ, Booth A. A typology of reviews: an analysis of 14 review types and associated methodologies. Health Information & Libraries Journal. 2009 Jun;26(2):91-108.
- 3. Cochrane Library [Internet]. London: Cochrane; c2000-2024. About Cochrane reviews: what is a systematic review?; [cited 2024 Nov 7]. Available from: https://www.cochranelibrary.com/about/about-cochrane-reviews
- 4. Joanna Briggs Institute (JBI) [Internet]. Adelaide: JBI. JBI critical appraisal tools: checklist for systematic reviews and research syntheses; 2017 [cited 2024 Nov 8]; p. 2.

Available from: https://jbi.global/sites/default/files/2019-05/JBI_Critical_Appraisal-Checklist_for_Systematic_Reviews2017_0.pdf

- 5. Eden J, Levit L, Berg A, and Morton S, editors. Finding what works in health care: standards for systematic reviews [Internet]. Washington, DC: The National Academies Press; c2011 [cited 2024 Nov 6]. Available from: https://nap.nationalacademies.org/read/13059/chapter/1
- 6. American Physical Therapy Association [Internet]. Alexandria: American Physical Therapy Association. Components of evidence-based practice; 2020 Mar 23 [cited 2024 Nov 6]; Available from: https://www.apta.org/patient-care/evidence-based-practice-resources/components-of-evidence-based-practice
- 7. Cumpston M, Flemyng E. Chapter II: Planning a Cochrane review [updated 2023 Aug]. In: Higgins JPT, Thomas J, Chandler J, Cumpston M, Li T, Page MJ, Welch VA, editors. Cochrane handbook for systematic reviews of interventions [Internet]. version 6.5. London (UK): Cochrane; c2024 [cited 2024 Nov 7]. [about 5 screens]. Available from: https://training.cochrane.org/handbook/current/chapter-ii#section-ii-3
- 8. Relevo R, Balshem, H. Finding evidence for comparing medical interventions. In: Methods guide for effectiveness and comparative effectiveness reviews [Internet]. Rockville (MD): Agency for Healthcare Research and Quality (US); c2008- [cited 2024 Nov 7]. Available from: https://www.ncbi.nlm.nih.gov/books/NBK53479/
- 9. Spencer AJ, Eldredge JD. Roles for librarians in systematic reviews: a scoping review. J Med Libr Assoc. 2018 Jan 12;106(1). https://doi.org/10.5195/jmla.2018.82
- 10. Petticrew M, Whitehead M, Macintyre SJ, Graham H, Egan M. Evidence for public health policy on inequalities: 1: the reality according to policymakers. J Epidemiol Community Health. 2004 Oct;58(10):811-6. https://doi.org/10.1136/jech.2003.015289
- 11. Welch, V., Tugwell, P., Petticrew, M., de Montigny, J., Ueffing, E., Kristjansson, B., McGowan, J., Benkhalti Jandu, M., Wells, G., Brand, K., & et al. (2010). How effects on health equity are assessed in systematic reviews of interventions. Cochrane Database of Systematic Reviews, 12. https://doi.org/10.1002/14651858.MR000028.pub2
- 12. Aves T, Kredo T, Welch V, Mursleen S, Ross S, Zani B, et al. Equity issues were not fully addressed in Cochrane human immunodeficiency virus systematic reviews. J Clin Epidemiol. 2017 Jan 1;81:96-100. https://doi.org/10.1016/j.jclinepi.2016.09.008
- 13. Evans J, Mwangi N, Burn H, Ramke J. Equity was rarely considered in Cochrane Eyes and Vision systematic reviews and primary studies on cataract. J Clin Epidemiol. 2020 Sep 1;125:57-63. https://doi.org/10.1016/j.jclinepi.2020.04.024
- 14. World Health Organization [Internet]. Geneva: World Health Organization; 2024. Health equity; [cited 2024 Nov 12]. Available from: https://www.who.int/health-topics/health-equity#tab=tab_1

- 15. Burford BJ, Welch V, Waters E, Tugwell P, Moher D, O'Neill J, Koehlmoos T, Petticrew M. Testing the PRISMA-Equity 2012 reporting guideline: the perspectives of systematic review authors. PLOS One. 2013 Oct 10;8(10):e75122.
- 16. Welch VA, Petticrew M, O'Neill J, Waters E, Armstrong R, Bhutta ZA, et al. Health equity: evidence synthesis and knowledge translation methods. Syst Rev. 2013 Dec;2(1):43. https://doi.org/10.1186/2046-4053-2-43
- 17. Parker R, Petkovic J, Pardo Pardo J, Darzi A, Dewidar O, Khabsa J, et al. The equity group: supporting Cochrane's social responsibility of improving health equity. Cochrane Evid Synth Meth. 2023 May;1(3):e12012. https://doi.org/10.1002/cesm.12012
- 18. Petticrew, M, Glover RE, Volmink J, Blanchard L, Cott É, Knai C, et al. The Commercial Determinants of Health and Evidence Synthesis (CODES): methodological guidance for systematic reviews and other evidence syntheses. Syst Rev. 2023 Sep 14; 12(1):165. https://doi.org/10.1186/s13643-023-02323-0
- 19. Schell CL, Rathe RJ. Meta-analysis: a tool for medical and scientific discoveries. Bull Med Libr Assoc. 1992 Jul;80(3):219.
- 20. Mead TL, Richards DT. Librarian participation in meta-analysis projects. Bull Med Libr Assoc. 1995 Oct;83(4):461.
- 21. Smith Jr. JT. Meta-analysis: the librarian as a member of an interdisciplinary research team. Libr Trends. 1996;45(2):265–79.
- 22. MEDLINE History [Internet]. U.S. National Library of Medicine; [cited 2024 Nov 1]. Available from: https://www.nlm.nih.gov/medline/medline history.html
- 23. Bastian H, Glasziou P, Chalmers I. Seventy-five trials and eleven systematic reviews a day: how will we ever keep up? PLOS Med. 2010 Sep 21;7(9):e1000326. https://doi.org/10.1371/journal.pmed.1000326
- 24. Higgins JPT, Thomas J, Chandler J, Cumpston M, Li T, Page MJ, et al., editors. Cochrane Handbook for Systematic Reviews of Interventions [Internet]. Vol. version 6.5 (updated August 2024). Cochrane; 2024 [cited 2024 Nov 5]. Available from: https://training.cochrane.org/handbook
- 25. Aromataris E, Lockwood C, Porritt K, Pilla B, Jordan Z, editors. JBI Manual for Evidence Synthesis [Internet]. JBI; 2024 [cited 2024 Nov 5]. Available from: https://jbi-global-wiki.refined.site/space/MANUAL
- 26. Arksey H, O'Malley L. Scoping studies: towards a methodological framework. Int J Soc Res Methodol. 2005 Feb 1;8(1):19–32. https://doi.org/10.1080/1364557032000119616
- 27. Rethlefsen ML, Farrell AM, Osterhaus Trzasko LC, Brigham TJ. Librarian co-authors correlated with higher quality reported search strategies in general internal medicine systematic reviews. J Clin Epidemiol. 2015 Jun 1;68(6):617–26.

https://doi.org/10.1016/j.jclinepi.2014.11.025

- 28. Koffel JB, Rethlefsen ML. Reproducibility of search strategies is poor in systematic reviews published in high-impact pediatrics, cardiology and surgery journals: a cross-sectional study. PLOS ONE. 2016 Sep 26;11(9):e0163309. https://doi.org/10.1371/journal.pone.0163309
- 29. Meert D, Torabi N, Costella J. Impact of librarians on reporting of the literature searching component of pediatric systematic reviews. J Med Libr Assoc. 2016;104(4):267–77. https://doi.org/10.3163/1536-5050.104.4.004
- 30. Ramirez D, Foster MJ, Kogut A, Xiao D. Adherence to systematic review standards: impact of librarian involvement in Campbell Collaboration's education reviews. J Acad Librariansh. 2022 Sep 1;48(5):102567. https://doi.org/10.1016/j.acalib.2022.102567
- 31. Schellinger J, Sewell K, Bloss J, Ebron T, Forbes C. The effect of librarian involvement on the quality of systematic reviews in dental medicine. PLOS One. 2021 Sep 1;16(9). https://doi.org/10.1371/journal.pone.0256833
- 32. Logan J. Why do researchers co-author evidence syntheses with librarians? a mixed-methods study. Res Synth Methods [Internet]. 2023 Feb 20 [cited 2023 Mar 23]. https://doi.org/10.1002/jrsm.1629
- 33. Nicholson J, McCrillis A, Williams JD. Collaboration challenges in systematic reviews: a survey of health sciences librarians. J Med Libr Assoc. 2017 Oct 2;105(4):385–93. https://doi.org/10.5195/jmla.2017.176
- 34. Ross-White A. Search is a verb: systematic review searching as invisible labor. J Med Libr Assoc. 2021 Oct 5;109(3):505–9. https://doi.org/10.5195/jmla.2021.1226
- 35. Bloss J, Sewell K, Schellinger J, Haberstroh A. Health sciences and medical librarians conducting research and their experiences asking for co-authorship. J Med Libr Assoc. 2022 Oct;110(4):449–62. https://doi.org/10.5195/jmla.2022.1485
- 36. Brunskill A, Hanneke R. The case of the disappearing librarians: analyzing documentation of librarians' contributions to systematic reviews. J Med Libr Assoc. 2022 Oct;110(4):409–18. https://doi.org/10.5195/jmla.2022.1505
- 37. Demetres M, Wright D, Hickner A, Jedlicka C, Delgado D. A decade of systematic reviews: an assessment of Weill Cornell Medicine's systematic review service. J Med Libr Assoc. 2023 Jul;111(3):728–32.12. https://doi.org/10.5195/jmla.2023.1628
- 38. Kallaher A, Eldermire E, Fournier C, Ghezzi-Kopel K, Johnson K, Morris-Knower J, et al. Library systematic review service supports evidence-based practice outside of medicine. J Acad Librariansh. 2020 Nov;46(6). https://doi.org/10.1016/j.acalib.2020.102222
- 39. Luca E, Ulyannikova Y. Towards a user-centred systematic review service: the transformative power of service design thinking. J Aust Libr Inf Assoc. 2020;69(3):357–74.

https://doi.org/10.1080/24750158.2020.1760506

- 40. McKeown S, Ross-White A. Building capacity for librarian support and addressing collaboration challenges by formalizing library systematic review services. J Med Libr Assoc. 2019 Jul;107(3):411–9. https://doi.org/10.5195/jmla.2019.443
- 41. Roth S. Transforming the systematic review service: a team-based model to support the educational needs of researchers. J Med Libr Assoc. 2018 Oct;106(4):514–20. https://doi.org/10.5195/jmla.2018.430
- 42. Yang L, Orchanian-Cheff A, Anderson M, Farrell A, Tripp T. Implementing a three-tiered service model for knowledge syntheses at an academic teaching hospital. J Can Health Libr Assoc. 2020 Aug;41(2):46–66. https://doi.org/10.29173/jchla29436
- 43. Waters E, Armstrong R. Knowledge synthesis, translation and exchange in public health and promotion: the role of a Cochrane Review Group. Prompt Educ. 2007; 14(1): 34-35.
- 44. Evans T, Brown H. Road traffic crashes: operationalizing equity in the context of health sector reform. Inj Control Saf Promot. 2003 Mar-Jun;10(1-2):11-2. https://doi.org/10.1076/icsp.10.1.11.14117
- 45. Karran EL, Cashin AG, Barker T, Boyd MA, Chiarotto A, Dewidar O, et al. Using PROGRESS-plus to identify current approaches to the collection and reporting of equity-relevant data: a scoping review. J Clin Epidemiol. 2023 Nov;163:70-78. https://doi.org/10.1016/j.jclinepi.2023.09.017
- 46. Kavanagh J, Oliver S, and Lorenc T. Reflections on developing and using PROGRESS-Plus. Equity update [Internet]. 2008 Mar 3 [cited 2014 Nov 7]; 2(1): 1,3. Available from:
- $http://methods.cochrane.org/sites/methods.cochrane.org.equity/files/uploads/Equity_Update_Vol2_Issue1.pdf$
- 47. Welch VA, Petkovic J, Jull J, Hartling L, Klassen T, Kristjansson E, et al. Chapter 16: Equity and specific populations [updated October 2019]. In: Higgins JPT, Thomas J, Chandler J, Cumpston M, Li T, Page MJ, Welch VA, editors. Cochrane handbook for systematic reviews of interventions [Internet]. version 6.5. London (UK): Cochrane; c2024 [cited 2024 Nov 7]. Available from:
- https://training.cochrane.org/handbook/current/chapter-16
- 48. Madani MT, Madani L, Ghogomu ET, Dahrouge S, Hébert PC, Juando-Prats C, Mulligan K, Welch V. Is equity considered in systematic reviews of interventions for mitigating social isolation and loneliness in older adults? BMC Public Health. 2022 Dec 1;22(1):2241. https://doi.org/10.1186/s12889-022-14667-8
- 49. Hartwell M, Lin V, Gatewood A, Sajjadi NB, Garrett M, Reddy AK, et al. Health disparities, COVID-19, and maternal and childbirth outcomes: a meta-epidemiological study of equity reporting in systematic reviews. J Matern Fetal Neonatal Med. 2022 Dec 12;35(25):9622-30. https://doi.org/10.1080/14767058.2022.2049750

- 50. Commission on Social Determinants of Health. Closing the gap in a generation: health equity through action on the social determinants of health. Final Report of the Commission on Social Determinants of Health. Geneva: World Health Organization; 2008. 247 p.
- 51. Tugwell P, Petticrew M, Kristjansson E, Welch V, Ueffing E, Waters E, et al. Assessing equity in systematic reviews: realising the recommendations of the Commission on Social Determinants of Health. BMJ. 2010 Sep 13;341:c4739. https://doi.org/10.1136/bmj.c4739
- 52. Rio political declaration on social determinants of health [Internet]. World Health Organization. Geneva: World Health Organization; 2011 Oct 19-21 [cited 2024 Nov 13]. 7 p. Available from: https://www.who.int/publications/m/item/rio-political-declaration-on-social-determinants-of-health
- 53. Welch V, Petticrew M, Tugwell P, Moher D, O'Neill J, Waters E, et al. PRISMA-Equity 2012 extension: reporting guidelines for systematic reviews with a focus on health equity. PLOS Med. 2012 Oct 30; 9(10): e1001333. https://doi.org/10.1371/journal.pmed.1001333
- 54. Welch V, Petticrew M, Petkovic J, Moher D, Waters E, White H, et al. Extending the PRISMA statement to equity-focused systematic reviews (PRISMA-E 2012): explanation and elaboration. Int J Equity Health. 2015 Oct 8;14:92. https://doi.org/10.1186/s12939-015-0219-2
- 55. Aromataris E, Lockwood C, Porritt K, Pilla B, Jordan Z, editors. JBI Manual for Evidence Synthesis [Internet]. Adelaide: JBI; c2024. Chapter 2.1, Equity, diversity, and inclusion; [cited 2024 Nov 8]. Available from: https://jbi-global-wiki.refined.site/space/MANUAL/355827799/2.1+Equity,+Diversity,+and+Inclusion
- 56. White M, Adams J, Heywood P. How and why do interventions that increase health overall widen inequalities within populations?. In Social inequality and public health 2009 Apr 22 (pp. 65-82). Bristol, UK: Policy Press; c2009: p. 65-82. https://doi.org/10.51952/9781847423221.ch005
- 57. Cochrane Training [Internet]. [place unknown]: Cochrane and Health Equity Thematic Group; 2024 November. [Video], Equity in all Cochrane reviews; [cited 2025 January 22]; [32 min., 52 sec]. Available from: https://training.cochrane.org/resource/equity-in-all-cochrane-reviews
- 58. Whitehead M. The concepts and principles of equity and health. Int J Health Serv. 1992;22(3):429-45. https://doi.org/10.2190/986l-lhq6-2vte-yrrn
- 59. Bosch-Capblanch X, Lavis JN, Lewin S, Atun R, Røttingen JA, Dröschel D, Beck L, Abalos E, El-Jardali F, Gilson L, Oliver S, Wyss K, Tugwell P, Kulier R, Pang T, Haines A. Guidance for evidence-informed policies about health systems: rationale for and challenges of guidance development. PLOS Med. 2012;9(3):e1001185. https://doi.org/10.1371/journal.pmed.1001185
- 60. Qualtrics. Qualtrics XM. Provo (UT): Qualtrics. c2005 [updated 2024 March; cited 2024 Nov 14]. Available from: https://www.qualtrics.com