



Role and Level of Engagement of Peer Researchers in Systematic Reviews: A Review Article

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Aims: This article aims at examining the role of peer researchers in systematic reviews of sensitive topics. While there are articles on the participation of peer researchers in primary research, there are very few studies on their role in systematic reviews. This project asks three research questions: What role do refugee/immigrant peers play in the systematic literature reviews of collaborative research models? What are the effective models used for engaging peer researchers in conducting systematic reviews of literature? In what ways are peer researchers being used in systematic reviews?.

Study Design and Methodology: this is a review article. Ovid Medline, Embase, Scopus, CINAHL, and Web of Science databases were consulted to understand the extent, knowledge gap, and scope

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of this systematic literature review. The team developed Boolean operators with four keywords: (i) systematic review, (ii) role or contribution or participation or engagement, (iii) peer research or collaborative research, and (iv) participatory research. In total, 270 articles were found, from which 99 were duplicates, 164 articles were removed after checking their title and abstract, and seven articles were selected for full article review.

Results: All seven articles were systematic reviews focusing on the involvement of peer researchers in the healthcare field and described succinctly the role of peer researchers in conducting systematic reviews. Of them, two articles described peers' involvement during the systematic review's design, methodology, and analysis activities; however, the involvement of immigrants/refugees as peer researchers in systematic reviews was not available despite repeated intentional searches. There is no mention of engaging any refugee peers in research on refugee interest.

Conclusion: Some studies show the benefits of involving peer researchers in a collaborative design. However, there is a scope for generating more evidence regarding the roles of refugee/immigrant peer-researchers in systematic reviews. From our practice, we recommend engaging at least two peers or 20% of the members of the research team for all levels of the research activity. The peer(s) need to have lived experience of the research of interest.

Keywords: Refugee peer researchers; immigrant researchers; systematic reviews; peer-led research; collaborative research design.

1. INTRODUCTION

This article aims to explore the state of knowledge about the roles of peer researchers in collaborative systematic reviews on sensitive topics. Collaborative research can take on a wide variety of forms. Anyone who offers advice about a particular research project is considered a "collaborator", [1] e.g., the entire international research community collaborates to advance scientific knowledge. At an operational level, the researchers that are involved in all main research tasks are considered "collaborators" [2] Collaborative research thus takes on a meaning that is somewhere in between these two extremes. As such, collaborative research is research "with" (stakeholders) rather than research "on" (targeted subjects) [3]; that arises out of the expressed needs, interests, and questions of the stakeholders who are most invested in the research and its findings and conducted in relationship with them [3]. In this article, collaborative research is understood as research that involves the integration of researchers or survivors from diverse groups, experiences, contexts, and backgrounds [4]. A collaborative systematic review involves an effective team-based evidence generation system that enhances the quality of the research process by nullifying the subjectivity of the principal researcher through objective data extraction, management of large data, and documentation process.

The next key concept that required definition is peer research. Peer-engaged research is a

collaborative process in which people with lived experience of the issues of interest take part in directing and conducting the research [5]. Peer researchers influence the research meaningfully reflecting on their lived experience of the topic being studied [6]. There are three levels of peer engagement identified in the literature: 1) 'Advisory- peers' who offer guidance and support (advisory boards and steering committees); 2) 'Employment- peers' who are hired as a core member of the team for assigned tasks within a project (e.g., for data collection and screening); and 3) 'Partner- peers' who are incorporated as leaders and decision-makers in the project [7].

Engaging with peers during the research process results in reciprocal benefits between the research process and peer-researchers [8]. While there are numerous articles on the roles of peer researchers in collaborative research designs, there are very few that focus on their roles and the extent of peers' involvement in systematic reviews [9,10], and how their involvement was facilitated [11, 12]. What is even worse, is the glaring absence of literature on the role of refugee/immigrant peer researchers in systematic reviews on research on refugee issues. This article aims to bridge this knowledge gap.

This article is very relevant as it takes note of the emerging debate in refugee studies. For decades, mainstream scholarship on refugee studies runs the risk of cultural representations of "refugee group members" as "power-less beings, and a victim whose judgment and reason had

been compromised by his or her experiences” [14]. In a clear departure from this mainstream position, this article acknowledges that a ‘refugee/immigrant) is an actor endowed with relational autonomy, who has a voice to speak and an authority to act even under constraining circumstances. This approach is inspired by Kyriakides’s ‘status eligibility’ framework, which claims refugees/immigrants are ‘persons of self-rescue who take deliberate steps to assert their ‘eligibility to exist’ and ‘authority to act’ [13].

The significance of this study lies not only in the lack of studies regarding the role of refugee/immigrant peer researchers in systematic reviews but also in the perception of their participation in research. It has been the case for a long time that academia as much as policymakers view refugees as passive beings who were good enough as objects of research but not as agents capable of conducting and or collaborating in conducting research [14]. The present article emerges from recognition accorded to immigrants and refugees as agents who can act on their lives including part-taking in research. Our research into the role of refugee/immigrant peer researchers in systematic review attempts to test to what extent academia has acknowledged their agency and used it in systematic reviews.

2. OBJECTIVE AND RESEARCH QUESTIONS

The overarching objective of this article is to review the available literature on the role of peer researchers in systematic reviews on sensitive topics. To meet this goal, three research questions were asked:

1. What role do refugee/immigrant peers play in the systematic literature reviews of collaborative research models?
2. What are the effective models used for engaging peer-researchers in conducting

systematic reviews of literature, especially for research focused on refugee health and wellbeing?

3. In what ways are peer researchers being used in systematic reviews on sensitive topics?

3. METHODS

This systematic review of published articles consists of eight steps: team building and role distribution to conduct a literature search, formulating the aims and purpose of literature searching, preparing a conceptual framework, formulating the search strategy, conducting database searches, conducting supplementary searching, managing references, and followed by charting plus reporting the search finding (Fig. 1) [14,15].

3.1 Team Building

Among others (MW, GA, and AA), this study embraced the active participation of two immigrant peer researchers in the team, one of who was a female medical graduate from Latin America (MA) and the other was a male university graduate from Africa with lived experience as a refugee youth in Canada (IA). They were graduate students at universities in Canada and were keen to understand the role of peer researchers in systematic reviews. After building the teams, the next step was defining the role and scope of each of the member’s activities in the process. The principal investigator (AA) guided the research, supervised the team, participated in resolving disputes during interrater variability of the review process, and finally edited the manuscript for scientific rigor. The Fellow (GA) coordinated the total activity that includes the review process, role distribution among peers, support AA for dispute resolution, and participation in drafting the manuscript as a coherent team activity following the co-production principles.

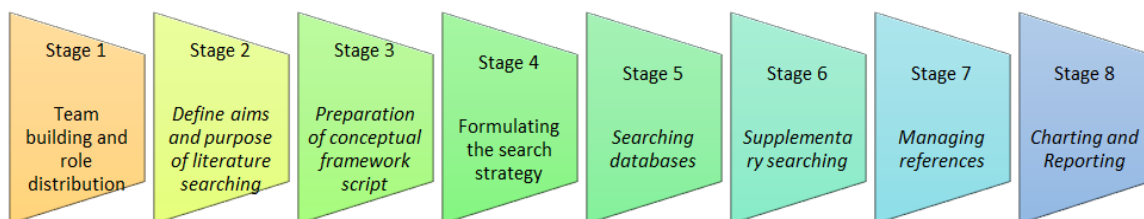


Fig. 1. The 8-stage strategy for searching the literature
Adapted from: Cooper, C., et al., 2018 key stages of literature search

To address the potential challenges in engaging with youth peer-researchers, the team adopted Hawke’s proposed “dos” and “don’ts”⁹ advice (Table 1).

3.2 Defining the Aim and Purpose

Considering the novelty of the topic of interest in the review, the team structured the criteria, aims, scopes, and purpose of the search aligning to the broader body of research on the impact of social isolation (due to the COVID-19 pandemic) on the refugee youth. While mapping this stage, one of the peer researchers involved in this article offered to write a first-person account of his role as:

A peer researcher’s (IA) testimony

“Let me begin by chronicling what I came to learn so far about the role of peer researchers in a systematic review, and what I contributed to the current piece. It was my understanding that traditional research typically involves academic(s) going through a rigorous, and iterative process of identifying relevant research papers that can potentially lead to discovering new knowledge. This process generally involves the academic on the outside looking inside into a problem. By taking the example of immigration, for instance, an academic researcher who tries to find out why refugees flee from their country of origin largely does so from the comfort of their homes, without firsthand experiences of refugee lives. A novel approach proposes involving people with lived experiences of the issues being studied in the research. The participants who undertake this type of research are called peer researchers. My name is IA and I am a peer researcher on this project.

As a peer researcher, I used my lived experiences as an immigrant to assist in producing information that would facilitate this research. I was brought on board this project as an employed peer researcher to join a research project team. Right from the beginning, I was briefed about the project, provided with a reading pack, and discussed my roles and responsibilities on the project. Later, I participated in multiple training sessions on how to effectively conduct a database search. This is an imperative step when undertaking a systematic review because it allows the product of the research to be methodologically rigorous. During the training sessions, I learned and contributed to the design of a robust search strategy. This consisted of developing a concept chart from the research question that was used to create database search filters, identifying, and developing the key search terms by effectively using Boolean operators to refine the search, and by limiting the search to a specific language or a specific document type. Furthermore, I collaborated with the researchers on the team to ensure that our database search strategies were consistent, which is the standard for a reproducible systematic review.” (IA).

3.3 Developing a Conceptual Framework for the Review

The team developed an all-agreed concept map for the total process of the systematic review process that was planned to be ending with preparing a manuscript for a journal preparation. This blueprint contained all resource mapping items, engagement protocols, search strategy, risk identification, and risk mitigation measures. The librarians of York University (IM) were very instrumental in developing this conceptual framework conducive to an efficient search strategy.

Table 1. Hawke’s dos and don’ts when engaging with peer-researchers

Don’ts	Do’s
Do not tokenize or patronize	Value youth expertise authentically
Do not ask for feedback then disregard it	Formally recognize youth contributions
Do not steer youth peer researchers toward the response you want	Provide a meaningful opportunity for participation,
Do not prioritize one type of knowledge over another	Clearly define roles, be transparent and genuine
do not be closed to new ideas and reluctant to adapt	Create friendly spaces
	Describe concepts without the use of jargon
	Hold briefs and debriefs for meetings

Adapted from: Hawke et al., 2018

3.4 Search Strategy

The team prepared a search strategy guideline that included search databases, keywords, Boolean operators, search strings (Appendix 1), and a provision for supplementary searches. Systematic review, (role/ contribution/ participation/ engagement) and (peer research/collaborative research/or participatory research) were the keywords selected for a search into each of the five databases.

3.5 Searching Databases

The team searched Ovid Medline, Embase, Scopus, CINAHL, and Web of Science databases between June 13 and June 22, 2022, to find 270 articles (86 from Ovid Medline, 42 from Embase, 47 from CINAHL, 54 from Scopus, and 41 from Web of Science) as shown in Fig. 2.

3.6 Supplementary Searches

A primary search identified that the literature is scarce regarding the extent of stakeholders' involvement in systematic reviews, and how their involvement was facilitated. Such a finding led the team to extend supplementary searches by removing "refugee peer researchers' and 'immigrant researchers' from the original list of keywords, to be able to catch a bigger number of articles but with no further yield.

3.7 Reference Management

After collecting the articles from different databases, they were listed on a spreadsheet and transferred to the Zotero reference manager for more efficient operations. One expert (FS) from the Canadian Centre for Addiction and Mental Health (CAMH) trained the team for two one-hour sessions on the modus operandi of Zotero.

3.7.1 Selection criteria and article (data) screening

Articles published in English in peer-reviewed journals were included in the selection process. To have a manageable database focused on peer-reviewed, the non-peer-reviewed articles, conference proceedings, reports, literature reviews, theses/ dissertations, and book chapters were removed from the search results. Then, duplicates (99 articles) were removed. Through zoom video meetings (and in screen sharing modes), the team removed 164 articles in Zotero

as they did not focus on the role of peer researchers in systematic reviews. After stringent scrutiny, a total of seven articles that included peer researchers as the primary focus in their systematic reviews were retained for further review. To improve the quality and rigor of our review, this piece conducted IRR: the team conducted zoom-assisted video meetings (and screen sharing mode), to collectively discuss and decide inclusion/exclusion. This task was one of the cornerstones of a collaborative research design and was aimed to reduce subjective bias in the review process.

3.7.2 Quality check of the extracted article

The research team assessed the quality of the included systematic reviews using the Critical Appraisal Skills Program (CASP) checklist reference (Critical Appraisal Skills Programme Qualitative Studies Checklist (2020). https://casp-uk.net/wp-content/uploads/2018/03/CASP-Systematic-Review-Checklist-2018_fillable-form.pdf). Of note, the CASP checklist is not intended to provide a score, rather it provides certain items related to validity, results, and generalization of the results.

3.8 Charting and Reporting

The team created a data extraction sheet to use as the basis for summarizing and analyzing retained articles. An excel data extraction sheet included the following column categories for each publication: type of article, overall purpose, setting/location, topic, research method(s), geographic location of study, what country is the target population from, what country have they immigrated to, the role of the peer researchers in the study, etc. Because of the small size of articles found, Covidence was not used for the next steps in the data charting process and for preparing the document.

4. RESULTS

According to the characteristics of the CASP checklist, all of the seven articles were classified as 'valid' scoring from 6 to 9, were systematic reviews focusing on the involvement of peer researchers in the healthcare field, and were published between 2011 and 2022. The findings from these articles were categorized into three themes: roles of peer researchers, models of their involvement in a systematic review, and participation of refugee or immigrant peer researchers.

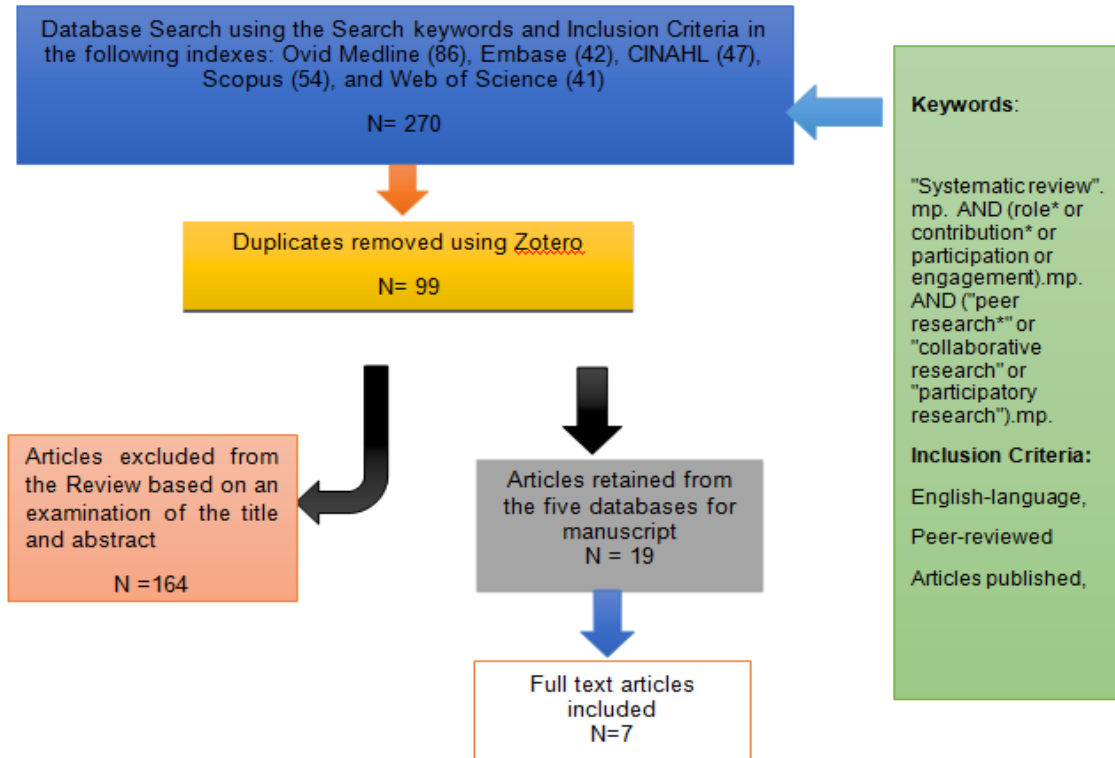


Fig. 2. Literature searching and sorting for selecting scholarly articles

The articles used diverse terms to define peer-researchers, whereas most of these used terminology related to patient and public involvement [16,17,18], co-researchers, [18] service user or service user representatives [19,20], and peer-collaborator [19,20].

There was no uniformity in the number of peer-researchers involved in the consulted systematic reviews: it varied from one [21] to three [19] Two articles included two peer-researchers (18, 20). None of the seven articles described a rationale as to why they chose a certain number of peer researchers. That means, there is no consensus to establish a recommended practice on the number of peer researchers in correlation with the type of study or roles.

There is a diversity in characteristics of peer-researchers involved in the different articles. Four articles reported the involvement of patients as peer researchers [18, 19, 20, 21], one study mentions salaried workers, health trainers, volunteer health champions, and program coordinators as peer researchers [22], while in one other study undergraduate students were mentioned as peer researchers, and in another study members of Canada's indigenous

community (from Nunatsiavut) were included as peer researcher [22].

4.1 Roles of Peer Researchers

There is no consensus on the roles of peer researchers in systematic reviews. All seven systematic reviews briefly described functions that peer researchers played within their respective research teams. Most peer researchers were involved in providing advice or feedback at any stage of the research process. In terms of relevance, importance, and plausibility of the systematic review, peer-researchers provided feedback on themes that emerged from the project [18,20]. Mostly, these themes were a product of the academic researchers' analysis. However, in one systematic review peer-researchers contributed to the co-production of themes [23]. Although one study stated that peer-researchers participated in the design, methodology, and analysis of the results, there is no detailed description of roles during each stage [19]. Interpretation of findings, gaps in studies, interpreting the abstracted data in a realist framework, and outlining the context and outcomes of individual studies were some roles

described in one systematic review [21]. Conversely, tasks such as identification of study design or comparison groups in addition to assessments of bias or quality of studies were classified as activities that peer-researchers were unable to execute [21]. There is no step-by-step process described on how peer researchers were instructed to carry out these roles. More elaborated tasks such as identifying components of complex interventions and developing theory for community-based peer-support interventions were included in one systematic review related to HIV, diabetes, breastfeeding, and smoking cessation [22]. Despite our repeated and comprehensive database search with regards to the roles of refugee/immigrant peer researchers in systematic reviews, this information was not available. None of the seven articles specify their peer-researchers as refugees/immigrants.

4.2 Models used for Involving Peer Researchers

The processes by which peers were involved in the research process vary. Involving peers in the research process by using advisory groups was the most common form of peer researcher engagement observed [18,19,20]. The number of peers within the advisory group and their participation were not consistent. One study engaged ten, diverse, elderly, community members to endorse and support the project. Of these ten participants, two volunteered to contribute to the review by assisting in the synthesis of the results and disseminating the findings back into the community [18]. Other studies used advisory groups to inform study protocol. Two studies involved teams of three peer researchers that contributed to the design of study methods as well as study analysis [19]. The other study worked with patient advisory groups to check if the terminology being used within the review was appropriate [20].

4.3 Ways of Participation of the Peer Researchers

In three studies, peer researchers were involved from the beginning through to the completion of the systematic review. One study limited the involvement of peer researchers to one stage of the research process [25]. The other two studies involved peer researchers throughout the entire process, as members of the authoring research team, contained "peers" from the community being researched [21,23]. Finally, one study used a peer group as a comparison group to cross-reference the findings of their review. The peers

in this article were neither a part of an advisory group nor a research team but informed the research topic by participating in discussion forums and focus groups, providing perspective for researchers [22].

5. DISCUSSION

Through a search of five online databases, this literature review has explored different aspects of peer-research involvement in systematic reviews. While the involvement of peer researchers in primary research has received better attention in recent decades [5], evidence is still not clear about their roles and levels of participation in systematic reviews. Different terminologies are used in referring to peer-researchers including service user(s), peer collaborator, co-researcher, or simply including them as patients, students, or participants, with no substantial differentiation of their roles. Additionally, broad concepts such as participatory research or patient and public involvement are also used to describe the participation of peer researchers.

Several studies indicate that engaging with youth peer researchers during the research process can result in several reciprocal benefits between the researchers and youth peer-researchers, as well as increase the validity of the research [9,16]. However, some studies indicate that when working with peer researchers, they encountered challenges relating to the organization of the project, involvement within the project, and recruitment of peer researchers [22]. To account for these challenges, it is suggested to use meetings regularly with peer researchers to address questions, assign new tasks, and give project updates in addition to including comprehensive training in how to search literature, synthesize evidence, and report results [16].

The researchers are consistent when reporting the benefits and challenges of peer-researchers involvement. Despite this, it can be concluded that there is no single formula when it comes to involving the number of peer researchers for efficient and inclusive collaborative participatory research. Scholars have identified that for a beneficial collaboration with peer researchers the following are essential: effective communication, building relationships, and breaking down barriers [18, 23]. However, the 7 articles fail to adequately elaborate on how they have worked with their respective peers in the reported systematic reviews. We practiced a model of

engaging over 20% of members of the active research team from the population of interest and from members of that population who have lived experience on the topic of interest. The team engaged them at all levels of the research process with full empowerment to influence the process by reflecting on their experience.

The levels and methods of involvement of peer researchers at any stage of the systematic review demand an adequate description including specific details. In this sense, some studies identify two levels of involvement: passive and engaged [20]. There is not any inherent problem with choosing one or the other level of involvement. Scholars argue that both levels impact positively the outcomes of the research if the aim of involvement and the objective of the research study establishes from the outset a clear and defined role of peer researchers [24]. Although our study articles describe the different levels of involvement of peer-researchers, which is correlated with the type of study and the population affected by the results, there is no available information about the involvement of immigrants or refugee peer-researchers in systematic reviews related to refugees. This tallies with the 'status eligibility' framework in which refugees are seen as 'persons of self-rescue who take deliberate steps to assert their 'eligibility to exist' and 'authority to act' and who can shape not just the knowledge production but also shape the formulation of culturally sensitive policies and responsive service provisions. Similarly, in terms of topics, only one study was found to be associated with minority groups, more specifically with Inuit communities in Canada. At a time when academics, nation states and international organizations, service providers, and policymakers are in unison voicing large about refugee and immigrant issues [25], it cannot be underlined enough how much an opportunity it is to expand systematic reviews involving peer researchers with lived experience in topics related to refugees or immigrants [8,26].

Most studies conclude the imperative need to describe the roles of peer researchers in systematic review more clearly. Furthermore, displaying whether peer-researchers contribute at the initial stages, during the review, or at the final stages of the review may enhance the validity of the project. However, the seven articles reviewed for this manuscript did not describe the role of the peer researcher in their

project in detail. The role of the peer researcher was reported in the methodology section of each study, but implications of peer involvement, how their role contributed to the review process, and direct project benefits were not noted extensively. The results of this literature review are aligned with those recommendations, emphasizing the importance of adopting a structured methodology of involvement of peer researchers in systematic reviews, and clear detailed reporting of their involvement within the review process.

Regarding this team's practice, throughout the whole process, the team met regularly to account for interrater variability. It is the central premise of this article that a methodologically sound review is characterized by detailed reporting of how the review was conducted and the results analyzed. This claim emanates from the realization that despite clear inclusion/exclusion criteria, reviews incorporate a degree of subjectivity that affects replicability [27], which demands conducting regular interrater reliability tests especially when multiple coders are involved to ensure consistency.

6. CONCLUSION

This study was designed to answer research questions about the role, model, and level of engagement of the peer researchers in systematic reviews on sensitive topics of interest such as refugee health or wellbeing. This article has identified gaps in getting all-agreed-upon answers on those questions where collaborative participatory research engaged peer researchers with lived experience of the topic being studied as part of the research team to direct and influence the course of the research. Despite the engagement of peer researchers being found effective, there is no consensus on the roles of peer researchers in systematic reviews. The articles reviewed for this manuscript briefly describe functions that peer researchers played within their respective research teams. Most peer researchers were involved in providing advice or feedback at different stages of the research process. In terms of relevance, importance, and plausibility of the systematic review, peer-researchers provided feedback on themes that emerged from the project. Mostly, these themes were a product of the academic researchers' analysis. Only in one systematic review process, do peer researchers contribute to the co-production of themes.

The second conclusion concerns the models used in peer researchers' involvement in systematic reviews. Peer researchers involve at three different levels: advisory roles, employee roles, and leaders or decision-maker roles in the project. The team found no literature regarding the roles of refugee/immigrant peer-researchers in systematic reviews, especially on immigrant or refugee issues. This literature review highlights the urgent need for a detailed report on and the methods of involving refugee/immigrant peer researchers, particularly in systematic reviews. The identified practice gaps can be instrumental to create a practice guideline and standard for engaging peer researchers in the systematic review and overall research processes on sensitive areas. In conclusion, to support this practice-guideline framing, the current research team practice can recommend the active and holistic engagement of the peer-researchers with lived experience on the topic of interest to influence the course of the research activity with full empowerment. Finally, the number of peer researchers in such sensitive research activities needs to be more than 20% of the core members of the research.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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APPENDICES

Appendix 1: Search strings used for all five databases.

Ovid MEDLINE: "systematic review".mp. AND (role* or contribution* or participation or engagement).mp. AND ("peer research*" or "collaborative research" or "participatory research").mp. LIMIT to (English language and article and journal)

EMBASE: "systematic review".mp. AND (role* or contribution* or participation or engagement).mp. AND ("peer research*" or "collaborative research" or "participatory research").mp. LIMIT to (English language and article and journal)

CINAHL: "systematic review" AND ((role* OR contribution* OR participation OR engagement)) AND (("peer research*" OR "collaborative research" OR "participatory research") Limiters: English Language; Peer Reviewed; Research Article

Scopus: (TITLE-ABS-KEY ("systematic review") AND TITLE-ABS-KEY (role* OR contribution* OR participation OR engagement) AND TITLE-ABS-KEY ("peer research*" OR "collaborative research" OR "participatory research")) AND (LIMIT-TO (DOCTYPE, "ar")) AND (LIMIT-TO (LANGUAGE, "English")) AND (LIMIT-TO (SRCTYPE, "j"))

Web of Science: ALL=("systematic review") ALL=(role* OR contribution* OR participation OR engagement) ALL=("peer research*" OR "collaborative research" OR "participatory research") #1 AND #2 AND #3 and Articles (Document Types) and English (Languages)

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