Reviewer's report

Title: Enhancing the scoping review methodology: A large, inter-professional team’s experience with Arksey and O’Malley’s framework

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Reviewer: Danielle Levac

Reviewer's report:

Overall I think this is a well-written and important paper that could serve to further the discussion and debate as to the role of scoping studies in health care. I think it offers an interesting perspective and that it is ultimately always helpful for others to read of, and learn from, researchers’ experiences undertaking this methodology. I would be eager to see it published but I do have the following issues that I would like to see addressed.

Discretionary revisions

1. The authors use the term ‘scoping review’ despite both Arksey & O’Malley’s and Levac et al.’s use of the term scoping study. Therefore, it would contribute to the literature for the authors to present an argument (that could be cited by others) as to why they advocate for/have chosen the term ‘review’ over ‘study.’

2. The authors could consider removing the citations from other work from their definition of scoping review and writing it entirely in their own words. This would again provide a citable definition for others to utilize or with which to disagree.

Minor essential revisions

1. The authors do not address the issues identified by Levac et al. with the 4 Arksey & O’Malley scoping study purposes. It is important to justify why they chose the two purposes as described in their paper, given the issues addressed by Levac et al.

2. Scoping studies do not appraise quality of the evidence reviewed. As such, the reader may be confused as to how the authors can aim to “[provide] health care providers suggestions to improve their practice.” When should findings from a scoping study be used to inform health care recommendations, especially when there has been no critical appraisal of the sources in the scoping study? Please clarify.

3. It could be argued that some of the challenges identified relating to using a large inter-professional team are not specific to a scoping methodology but are relevant to any research endeavour. Could you be more clear as to how you feel they are similar or different.

Major compulsory revisions

1. It is my belief that the authors find themselves in a difficult position because
they undertook a scoping study using the original Arksey & O'Malley framework at a time when the updated Levac et al. recommendations were being published. As such, they don’t seem to be in a place to provide a paper that would most advance the field (and which is called for by Levac et al), which would be to comment on the process (challenges and benefits) of using the updated Levac et al framework in practice. The Levac et al open-access manuscript has received many citations and downloads since its publication in 2010, and one could argue (though this is only a hypothesis and certainly not a forgone conclusion!) that most people who are undertaking a scoping study will now be using their recommendations. As such, it is a limitation of this paper that it cannot provide a critical commentary related to their use. To address this issue, the authors should consider the following suggestions:

a. The authors mention many instances where they agree, and some where they disagree, with Levac et al’s recommendations. As such, readers would benefit from 1) a table summarizing these agreements/disagreements and 2) a table summarizing their own, additional recommendations (i.e. “instances where the framework can be improved”, “proposals for consideration not yet expressed by others”). They should be clear as to how these either builds on Levac et al or on Arksey & O’Malley. Doing this will clearly continue the linearity of scoping methodology updates (Arksey & O’Malley # Levac et al # the authors). I agree that reaching the same conclusions is important and worthy of note; the particular conclusions that are similar between the two papers therefore need to be highlighted in a summary table.

b. Doing the above would also facilitate the authors in being more specific about the purpose of this paper beyond “contributing to the discussion”

2. I recognize that this is an opinion paper, however, it is still important to provide some information as to how you arrived at and achieved consensus about the recommendations you make within the critical commentary. Are these issues/recommendations the product of the entire research team who undertook the scoping review?

3. I’m confused by the authors’ comment that this methodology can typically offer only generalizations and I don’t agree with it. Please expand on why you feel that scoping methods can not provide specific answers to research questions.

4. The authors provide examples of how they used the Arksey & O’Malley framework for most of the stages, but they provide the least information related to arguably the most important 5th stage, that of ‘collating, summarizing, and reporting the results’. It isn’t necessary for the authors to repeat their methods probably described in their scoping review manuscript, but it would be of benefit to this paper to briefly outline how they did this step, particularly since Levac et al identify it as the most complex and in need of more information from researchers to describe how they got their results, and that they suggest breaking it up into three steps. It would also be relevant to know the outcome of their scoping review in brief, mostly in terms of how their findings were organized (was it a list of information needs, etc).
5. I like your strong recommendation that researchers match their research interests with the scoping review method and your suggestion that researchers consider whether it is really the right method for their question. I think this could be strengthened by the authors presenting their definition of a scoping study/review (see above) because, as identified by Levac et al, without further clarification as to definition, purpose, etc, this is difficult to know.

6. However, re # 5, I struggle with both your initial and revised research questions as presented in the paper. It seems that the initial question is actually 2 questions (1. what information is provided by HCPs and 2. what information is needed by clients). I think my confusion stems from not being clear as to how this is a scoping question as opposed to a straight literature review question. Scoping reviews differ from literature reviews in that they involve some type of analysis and reinterpretation of the data. The question as listed does not allude to that important element of scoping review methods that distinguishes it from a literature or narrative review. I guess this and the following concerns related to this section of the manuscript stem from not being convinced that the issues really relate to scoping review methods rather than the authors’ research question itself. I also think that it is not just important to consider whether the research question fits with a scoping method, but all stages of the scoping framework. In particular, ‘collating, summarizing and reporting the data’ (in terms of the recommendations provided by Levac et al) offers a lot of potential to do really interesting things with data analysis and interpretation that other methodologies do not, and considering this should also be important in deciding whether you should undertake a scoping review versus another type of review (literature or systematic). Another example of my confusion with this section as a whole: if, as you say, you wanted to extract data that would tell you something concrete about the information needs of people with cancer, should the RQ not be ‘what are the information needs of people with colorectal cancer’? This seems to link with A&O’s first purpose of summarizing the extent, range and nature of research activity. You could chart for what researchers have identified as the research needs, your analysis could group needs together to highlight which were similar or different, and your outcome could be a list that both summarizes the needs identified and notes the gaps/areas for future research.

7. Please expand on why you “developed serious reservations that [you] could claim to understand patient information needs”? Was it because there wasn’t enough literature available on this topic? More explanation is necessary as to how this relates to a flaw in the scoping review methodology rather than a mismatch between research goals and scoping methods. It seems like not being able to identify ‘what information was important to patients’ could be because there weren’t any qualitative studies asking that question from which to chart the data. I don’t think a scoping study question should ask a straight qualitative question related to what information is important to patients.

8. I strongly disagree with the statement that scoping studies can only answer research questions related to an analysis or comparison of studies. If the authors make this conclusion they should support it with evidence.
Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.