Reviewer’s report

Title: Librarians as methodological peer reviewers for systematic reviews: results of an online survey

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Reviewer: Farhad Shokraneh

Reviewer's report:

This is a timely fantastic survey on the role of librarians as peer-reviewers and methodologists. I am sure this work will be widely visible, will be cited and consulted frequently.

0. GENERAL: The authors have frequently used the term standard for referring to reporting guidelines, tools, and checklists. In discussion, they also use the term gold standard. I am concerned that overrating tools is an unsafe idea and this includes MICIER that used the term 'Standard'. If we agree on a definition of 'standard' and gold standard I doubt any of them are even get close to be standard. For example PRISMA and CONSORT are reporting guidelines and PRESS is checklist. I request the authors to actually discuss that there is no standards for designing search but there are some reporting guidelines, tools and checklists. If we ask 10 librarians to run systematic search for one question in one database and ask them to follow one of these 'tools' we will have 10 different search strategies and 10 different results sets so could we still call them standard. We could call statistical methods standard because there is a definite pathway to analyze the certain type of the data corresponding a hypothesis and if you ask 10 statistician to do the analysis majority or all will follow the same methods and get the same result otherwise no research will be statistically reproducible. Would you also please replace all the terms 'standard' in manuscript and appendices with a better term depending on the context?

1. BACKGROUND

1.1. "Studies are data" could be revised as 'studies are source of/hold/report the data'.

1.2. Please be generous on citing the literature related to the reproducibility of the systematic reviews. Citing all the relevant literature will integrate your survey in the correct context. Please also cite DOI: 10.1016/j.jclinepi.2017.10.017 and 10.1016/j.jclinepi.2019.04.008 and 10.13105/wjma.v7.i3.66. The last two discuss the importance of search in reproducibility. You may either use them in background or in discussions.
2. METHODS

2.1. The details of designing the survey have not been reported. Would you please report how you ended up with these questions and if there was a check for reliability and validity? The readers will be interested in running similar surveys from the journal editors.

2.2. I notice that you have fairly discussed the limitations of representativeness of the sample. I wonder if there was a rationale on selecting these listserves rather than the other ones. Was there a random selection from a list of LIS lists?

2.3. I know that it is not accurately possible to mention the exact number of research population but it is possible to mention the 'number' of members of each mailing list. Either the list of members is available in online website of the mailing lists after login or could be accessed contacting the moderator. Also you can mention that there is overlap in members of the lists so one librarian can be member of more than one list. This information could be useful for other researchers who want to use the members of these mailing lists as their population.

2.4. There is no mention of statistical analysis and text in methods. You have also used R for the analysis and I wonder if it is possible to share the raw data in Excel or .txt and analytical codes from R or Excel formula so that people could test the reproducibility of your results.

3. RESULTS

3.1. Please rethink the data presentation method. I know you probably have a reason for using tables but I thought some of the tables (i.e. Table 1) could be pie charts. Again this is your preference. See what will suit the readers.

3.2. The authors have used 'marginally significant' for p value of 0.0726. Is there evidence in such interpretation? Usually, it is being interpreted as insignificant or marginally insignificant.

3.3. It is a clear and predictable finding that if you have authorship you are more likely to be invited to become a peer-reviewer. I will add why and I request the authors to please discuss this in their discussion.
4. DISCUSSION

4.1. The main reason that the librarians with authorship have more chance to be invited as peer-reviewer is that they have to be registered in Journal Submission System. While registering as an author the system also ask if they want to be peer-reviewers and also asks the areas of expertise. This information stays with the journal system probably forever! It means the journal and the journals of the same publisher can access these information. Usually editors check and invite the reviewers from this system. System matches the topic of the submissions with area of expertise and suggests the matched users as potential reviewers. And the easiest solution for the librarians who want to be peer-reviewer is to go to the journal of interest and actively register in their journal submission system. It is better than passively sitting back and waiting to be invited. They do not have to be an author to register in a journal submission system. Sooner or later they will be invited as peer-reviewers. But I warn about the gains compared to the pains.

4.2. Unlike other academics and researchers many librarians are in job families that have little opportunity for career development so they are not motivated and by spending their time on peer-review they cannot get credit or benefit. I think adding the idea of using Publons for registering the peer-review records could be a personal motivation but still they should think if it worth spending time on peer-review.

4.3. I also would argue that the editors should invite the librarians to peer-review only search methods; firstly it means the editors have to write a specific letter and many editors are busy to do to that, secondly the librarians can accept the peer-review suggestion and only peer-review the search methods and while submitting the comment they could write to the editor that because I am search methodologist I only reviewed the search; and thirdly, some librarians have enough subject expertise that they can actually peer-review the entire manuscript. Such expertise may come only from years of work as the authors discuss or education background because not all the librarians have LIS degree.

4.4. Another frustration is that by the time that the authors submit their manuscript as protocol or full review to the journal they have already started the search and screening! It means it is too late. Except from Cochrane that mandates the search date must be after protocol publication date there is nothing to stop the authors from ignoring the comments. Being ignored is another barrier.

4.5. PRESS as a tool has been overrated. It is useful for beginners or people who have no expertise in search but even before PRESS there were people who were doing the peer-reviews based on the same PRESS items or even more items.

4.6. I liked that the authors discuss that peer-review is not limited to the journals. Peer-review of search may happen during the development of the protocol, in grant application, as part of higher education project or dissertation, post-publication as a letter or in online platforms, etc. Please advice that the future studies may take a broader approach and include all types of peer-review.
4.7. I recommend the author to add the heading after limitations for "Implications for research, practice and policy" and discuss that what should be next research (survey of editors), what should librarians do (register in online submission systems of specific journals), and what to LIS organizations do (MLA, CILIP, etc. to contact ICMJE, WAME, Equator Network, etc.).

4.8. A danger that might occur where there is no standard it that design of the search become a battle ground for subjective peer-reviewers. This is when you 'like' something to be in written/designed in a certain way but authors' way could be as sensible as peer-reviewers way. There should be a cut-off point to ask 'does this change in search strategy finds new missing valuable studies or does it change the conclusion of the review'.

5. LIMITATIONS: Please add that the librarians are not only reviewing the systematic reviews and the survey questions might be confusing for some of them and they might have thought of the survey as a survey of their entire peer-review practice. So they actually might have used CONSORT or STROBE or STARD, or etc but not for peer-review of the systematic reviews but for trials, observational studies, etc.

6. CONCLUSION

6.1. Search methods are not fully comparable with statistical analysis as I mentioned before. If you feel it is important please discuss it.

6.2. Please replace 'reproducibility crisis' with 'irreproducibility crisis'.

7. CONFLICTS: Since all the authors are librarians it worth noting that they can be consciously or unconsciously biased in supporting the ideas in favor of librarians.

I congratulate the authors for such a great survey. I am glad to see that the librarians are caring about different aspects of their own practice and producing the evidence base to support the practice when they have no grant to conduct a research. Please, both the authors and editors, feel free to contact me if there is anything else I can do. I recommend the manuscript for publication with minor revisions.
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