Author’s response to reviews

Title: Assessment of reporting quality of abstracts of systematic reviews with meta-analysis using PRISMA-A and discordance in assessments between raters without prior experience

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Author’s response to reviews:

Pentti Nieminen, PhD
BMC Medical Research Methodology

Re: Resubmission of the manuscript BMRM-D-18-00501

Dear Editor,

thank you and the reviewers for valuable feedback regarding our manuscript BMRM-D-18-00501, titled: Assessment of reporting quality of abstracts of systematic reviews with PRISMA-A and discordance in assessments between raters without prior experience. We appreciate the opportunity to submit our revised work. Hereby you will find the detailed point-by-point response to the comments we received. Enclosed you will find both clean copy of the revised manuscript, as well as manuscript marked with track changes, for easier following of the changes.

Response to reviewer reports

Athina Tatsioni (Reviewer 1):

1. Maticic et al., have performed an interesting empirical study on assessment of reporting quality of abstracts of systematic reviews in anesthesiology using PRISMA-A. In addition, they estimated discordance in assessments between raters without prior experience. The authors have indeed a profound knowledge on assessing the reporting of study quality and are very familiar with the EQUATOR list of instruments that support this process. However, I am a little hesitant as to the message that this paper may convey. Specifically, it is based on abstracts of published systematic reviews and meta-analyses in fulltext in peer-reviewed journals. This implies that the reviewers of the manuscripts have already performed a quality assessment for these papers.
Author response: We appreciate comments of the Reviewer. We agree that suboptimal reporting may be prevented by better peer-review. However, from the personal experience, I can convey that I have served as a reviewer for more than hundred journals, and reviewed countless manuscripts, including many trials, systematic reviews and meta-analysis, and I have never encountered instructions for reviewers that asked reviewers to check compliance of the authors with a relevant checklist for abstracts, such as CONSORT-A for abstracts randomized controlled trials, and PRISMA-A for abstracts of systematic reviews. Therefore, if the peer-reviewers themselves are not aware of the existence or the importance of the reporting checklists for abstracts, or prompted by the journal to review those abstracts according to the relevant checklists, reviewers will probably not contribute to better reporting of those abstracts – in line with the expectations of reporting checklists. Therefore, ultimately, editors as gate-keepers have multiple responsibilities – to ensure not only that high-quality content gets published, but also that the content is adequately reported. We already hinted at this in the Discussion, but based on this comment, we have expanded these considerations further in the Discussion.

2. Assuming that several PRISMA A items are missing from the abstracts, the final publication may also reveal an inadequate review process instead of an abstract non-adherent to PRISMA-A.

Author response: The reviewer is correct; it is highly likely that suboptimal reporting in the abstract may also be linked with the suboptimal reporting in the full text. However, this was not the aim of our study. We did not aim to analyze abstract with PRISMA-A and the full text with PRISMA, and to study correlation between reporting of abstract and reporting of the manuscript. Since PRISMA-A is a separate checklist, which was developed and published after PRISMA, it is possible that authors may use PRISMA for reporting the full-text manuscript, but that they do not use PRISMA-A for reporting abstracts. We have highlighted this now in the manuscript, with an additional paragraph in the Discussion.

3. In addition, some of the items may well be addressed in the full text and journal guidelines may not encourage their reporting in the abstract (word count also plays a role to this decision). Such examples include "Strengths and limitations of evidence", "Funding", "Registration number".

Author response: The Reviewer is fully right that certain items can be addressed in the full text, and that journal guidelines may not encourage their reporting in the abstract, particularly when the word count is restrictive.

However, word count restrictions may not be associated with poor reporting. As we have referenced in our manuscript, Bigna et al. concluded that the reporting quality of analyzed SR abstracts was better in abstracts structured with 8 headings and abstracts with word count under 300 words.

The PRISMA-A is a reporting checklist that recommends twelve items that were deemed important for reporting of a stand-alone abstract. Those same items are also expected to be reported in the manuscript. The importance of using a reporting checklist for an abstract is in the
The fact that an abstract is usually the first part of the manuscript to be read, and often the only available part of the manuscript. For this reason it is important to report the key details in the abstract. The authors of the PRISMA-A have emphasized:

‘We have suggested reporting a minimum set of items. We do not advocate that abstracts replace full articles in informing decision making, but we recognise that for many time-pressed readers, or for those with limited access to the full texts of reports, it is important that abstracts contain as much information as is feasible within the word limit of abstracts. Indeed, for readers who do not understand the language of publication of the article, the translated abstract may have far more relevance than the full-text article.’

Of course, if editors do not encourage better reporting or heavily restrict the abstract word count, then the expected reporting of key domains may be hindered. This is now emphasized in the Discussion.

4. Finally, the ultimate decision on whether a published systematic review/meta-analysis would be helpful and of high quality to support clinical practice guidelines is made by the assessment of the whole manuscript; not merely by the assessment of the reporting of the abstract. Based on the previous comments, I think that the effort made by the authors does not meet the novelty to be published in a journal with a broad audience. Authors may consider trying to submit their work to a journal on the field of anesthesiology. A comparison with a control group of conference abstracts on the same field may also enhance the conclusion and provide additional guidance.

Author response: We would kindly like to offer a different point of view in this respect. The BMC Medical Research Methodology places very high emphasis on the quality of reporting, and one of the journal sections is called ‘Data collection, quality and reporting’. Poor reporting has been recognized in many methodological manuscripts as a major obstacle in scientific literature, and contributing to research waste. Comparison with conference abstracts would not be adequate in this context because conference abstracts are rarely peer-reviewed in the same sense as the manuscripts submitted to a journal.

Jianghua He, Ph.D. (Reviewer 2): This paper studies the impact of PRISMA-A on the abstracts for systematic reviews and meta analyses. The analyses were simple and straightforward.

There are some minor comments.

1. The title should be more specific, such as systematic reviews with meta analysis since systematic reviews without meta analyses were excluded from the study.

Author response: We thank the reviewer for suggestion to make the title more specific. We revised the title, as suggested.
2. I am not sure how widely is the check-list accepted as a quality measure or is it valid a an quality measure. It seems more appropriate to call the analysis result as the impact of the checklist on abstracts rather than reporting QUALITY of abstracts. The study result seems to show that the checklist doesn't have any obvious impact on researchers drafting their abstracts for systematic reviews and meta analyses.

Author response: It is customary to use the expression ‘reporting quality’ or ‘quality of reporting’ in the methodological literature about reporting checklists. The authors of PRISMA-A also used the expression ‘quality’ in their manuscript. However, if the editors and reviewers would prefer, we can easily revise the manuscript to avoid mentioning of the reporting quality in the context of our own results, and simply write ‘reporting’ instead.

Lu Mao (Reviewer 3): This manuscript analyzes 244 abstracts reporting systematic reviews in anesthesiology for adherence to the PRISMA-A guideline over 2012--2016. The compliance of each abstract to each item in the checklist of PRISMA-A was determined by two raters independently. The primary outcome is overall adherence to the checklist, measured by the median of the numbers items adhered to. The secondary outcome includes adherence . Overall, this paper is well motivated and well written. I have the following suggestions for improvement.

Author response: We are grateful for the kind words of the reviewer. We did our best to address the three suggestions for improvement that were provided.

1. To better visualize the results, perhaps a scatter plot (or mean plot) for the yearly trend on the average/median numbers of adhered items can be included. Likewise for individual items, a trend plot for the proportion of adherence will also be helpful.

Author response: Our findings were rather non-exciting regarding the visual presentation. We found, as indicated in the manuscript: ‘We did not see any improvement in the adherence to PRISMA-A over the analyzed five years; median adherence in four of the five analyzed years was 42%, while in 2013 median adherence was 46%.’. Therefore, we are not sure that adding a figure that will repeat this sentence would enhance the manuscript much. However, we will be happy to create such figure if the editors would like us to include it. As for the individual items, since there are twelve items, and five years that were analyzed, adequate visual representation would require multiple visual plots, which would not be as compelling as perhaps presenting medians for individual items in a table. For this reason, we created an additional table, depicting medians of individual PRISMA-A items. This is new first table, while the former table was renamed into second table in order.

2. To my understanding, each item will be rated as being adhered or not by two raters. How is the adherence status determined if the ratings are discrepant?
Author response: To increase reliability of the final rating, it is customary in systematic review methodology and methodological studies to use more than one rater, to perform independent evaluations, then compare obtained results and enter into a consensus phase in which two independent authors discuss the differences, offer their point of view explaining their own evaluation, and the aim of the consensus phase is to decide the uniform approach to the issue. If two authors cannot reach agreement, the third author is involved into decision-making. If there was a discrepancy in the initial opinion, the final adherence status is determined by the consensus decision. In this particular manuscript we did not have a need to involve the third author in the decision-making. We have indicated this now in the manuscript.

3. A minor comment: the term "over analyzed time" in the Methods section of the Abstract is a little confusing and might as well be changed to "over time".

Author response: This was revised, as suggested.

We hope that the revised manuscript will be satisfactory.

Sincerely,

Livia Puljak and co-authors