Reviewer’s report

Title: Clinical performance comparators in audit and feedback: a review of theory and evidence

Version: 0 Date: 12 Feb 2019

Reviewer: Bianca Albers

Reviewer's report:

Dear Wouter T. Gude and colleagues,

Congratulations on your work! I have read your manuscript with great interest and provide some suggestions below that I am hoping will be helpful in your revision of the manuscript.

INTRODUCTION:

- Your definition of what audit and feedback is ('a summary of clinical performance over a specified period of time') appears too brief for me here - and I could not find further explanations that can give me a clear understanding of how audit and feedback normally is implemented. I think it is worth describing the range of interventions that may be categorized under the A&F label - e.g. written A&F, online A&F, A&F with feedback provided by expert / supervisor …. etc. I am assuming that these are the types of A&F that have been included in your work - but correct this, if I am wrong.

Methods:

- I find it difficult to fully follow the methods section, and I think it needs to be further developed before it can be considered a fully detailed methodology. The following are a couple of thoughts on how to do that - they are not capturing everything and should be viewed as an illustration of what I would be interested in understanding better.

  o Basically, you are describing to have used the following streams of literature:

    ♠ 2 systematic reviews focused on A&F studies. Why are these the best "go-to-places" for realizing your project, why not conduct your own SR?

    ♠ A (a) separate SR focused on theories used in A&F - combined with (b) expert outreach and a (c) "supplemental" theory-focused lit search based on a separate method. Why (a)? And if (a), then why (b) and (c) -and why the particular method for (c)?
An unspecified evidence synthesis that appears to be in progress that probably focuses on qualitative studies. However, you are not providing a lot information about this evidence synthesis project. Why was this necessary? What was the method used to identify studies - is it a full SR?

It is unclear to the reader how you analyzed your data - no information is provided about this in the methods section, and one can only make assumptions based on the presentation of your results. For example:

- Did you use a particular framework?
- How did you triangulate the different sources of data (RCTs - theories - qualitative findings) and let them 'talk to each other' - in other words: Which source of literature had which function in your analysis?

RESULTS:

- To begin with, I would expect to see a summary of the key characteristics of the studies that you have included. I am aware that these data are likely provided as part of the original SRs but there is information that is relevant to include here, because it may affect your findings. E.g., are these clinical health studies only? Was the majority of studies conducted in the U.S. or elsewhere? Were low-, middle- and high-income settings included? Which health areas were included? Were there any limitations on language, years etc.?

- By the way, your remark under limitations that you only used trials that tested interventions within research rather than routine settings comes rather late - that would be a piece of information that I would expect in the aforementioned introductory results section.

- I would turn around your approach to tables and include the supplementary table 1 in the text and refine it further - it helps to understand how you used your different streams of literature. It could be improved by disentangling these streams into one column with RCTs derived from the two SRs, one column for theory sources and one column describing mechanisms. The current table 1 might be better for an electronic supplement - but it would also be okay to keep it in the text.

- I do understand your choice to structure this section by comparator but would have preferred a clearer structure for each of the comparator sections such that I as a reader have a chance to understand:

  - These findings are derived from the 146 RCTs
  - This is what the theory literature says about how these comparators might work in practice
  - These are the mechanisms that we identified in qualitative studies and few additional RCTs
I am not sure whether this would mean to "over-structure" your paper - and whether greater clarity in the methods section already might address this indirectly such that further subheadings within sections are not necessary. Maybe give this some thought while revising the paper - it is not a 'must edit', rather view it as a 'suggestion'.

DISCUSSION:

- Some results appear 'undiscussed' here. For example, you highlight the lack of theory use for almost all studies that you examined. I would use the discussion section to reflect on: Why is theory use important? How can it improve the choice of comparators and the use of A&F? etc.

- I like the rest of the discussion and your choice to focus on implications. However, given that your studies focus on research settings only - any thoughts on how the implications you describe would change if real world setting trials were the focus? And should that lead to you emphasizing that recommendations can only be made for how to improve A&F comparator practice as part of research setting trials? Just a thought.

LIMITATIONS:

- Depending on the type of studies that you have included (per my first point under 'Results' above), you may need to consider further limitations - e.g. what if the majority of studies comes from the U.S.?

All the best for progressing this in the coming time!

Kind regards

Bianca Albers

Level of interest
Please indicate how interesting you found the manuscript:

An article of importance in its field

Quality of written English
Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited
Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests.

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal.