Author’s response to reviews

Title: The SPARK tool for prioritizing questions for systematic reviews in health policy and systems research: development and initial validation

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Version: 1 Date: 09 Aug 2017

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August 09, 2017

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Dear Dr. Gonzalez-Mcquire,

We thank you for the opportunity to revise our manuscript for your consideration for publication in Health Research Policy and Systems. The reviewers’ comments and suggestions were very constructive and helped us improve the quality of our manuscript.

Please find on the following pages our detailed point-by-point responses to the suggestions.

We hope to hear from you soon as we would like to widely disseminate the SPARK tool (in case the manuscript get published) at the Global Evidence Summit (GES) which will be held in September 13-16, 2017 in Cape Town, South Africa.
With kind regards,

Fadi El-Jardali,
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Reviewer 1
Comment 1: A thoughtful and useful article with solid and practical recommendations for prioritization and no major limitations.
Response 1: Thank you. We highly appreciate the positive evaluation of the manuscript.

Reviewer 2
Comment 1: This paper from a highly experienced team provides a generally clear account of an initiative that could be potentially important in helping to ensure scare research funds are spent in the most effective way. There are a small number of points that would benefit from some further attention.
Response 1: Thank you for the positive evaluation of the manuscript.

Comment 2: The background includes a fairly comprehensive account of the relevant literature. There are, however, a few more papers that could be useful to reference, for various reasons. For example, Viergever et al. provide what has become a key checklist for health research priority setting: Viergever et al. Health Research Policy and Systems 2010, 8:36
http://www.health-policy-systems.com/content/8/1/36  It might be worth including it, even though I note you do reference the recent application of it by Mador et al (your reference 16
Response 2: Thank you for suggesting this excellent study. We now refer to Viegever et al in the background and discussion sections of the manuscript.
We have added the following statement to the background section (page 6):

“A number of tools and approaches have been published for setting research priorities [18, 19]. For example, Viergever et al. developed a nine item checklist that provide guidance for planning research prioritization processes [20]. However, these tools and approaches focus on health or clinical research in general, with none specific to systematic reviews or HPSR.”

We have also added the following paragraph to the discussion section (page 19):

Finally, it is worth noting that priority setting is just a first step in the knowledge framework [38]. Following a priority setting exercise, it is important to document the details of the prioritization process to increase the credibility and thus the acceptability of the final products [20]. This should be followed up with evidence synthesis, knowledge translation activities, and impact analysis [38]. This will help with examining the degree to which the priorities have been addressed in research, and whether and how the research was used (or not) in decision-making [20, 38].

Comment 3: Bryant et al in their 2014 paper 'Health research priority setting in selected high income countries: a narrative review of methods used and recommendations for future practice' use the term 'vignette' to describe the brief background paper that can be used to provide information to those answering prioritisation questions. Perhaps this term might usefully be applied to some of the preparation material described on p.15 of your paper? Bryant et al. Cost Effectiveness and Resource Allocation 2014, 12:23

https://resource-allocation.biomedcentral.com/articles/10.1186/1478-7547-12-23

Response 3: Thank you for your helpful comment. We now use the term ‘vignette to refer to the preparation material suggested for module 1 (page 17):

“In preparation for using module 1, it would be useful to prepare and distribute to policymakers brief vignettes containing background and contextual information on the problem being addressed by each question of interest [26].”

Comment 4: Then there are a couple of papers published since your article was submitted that might add some additional relevant perspectives.

* First, Moore et al asked: 'Does knowledge brokering improve the quality of rapid review proposals? A before and after study' Moore et al. Systematic Reviews (2017) 6:23 DOI 10.1186/s13643-017-0411-0
Second, a recent publication highlights the importance attached by the UK’s National Institute for Health Research (NIHR) to both collaborative priority setting and the role of systematic reviews. The evidence is described in the Supplementary web appendix to a Letter in the Lancet in which Nasser et al explore what different research funders are doing to minimise waste in research (ie related to issues highlighted by Chalmers et al, 2014 that you include as reference 31). This letter might be important because it shows the NIHR both involve various groups in priority setting, and state that any new research requires systematic reviews of existing evidence. Nasser et al. What are funders doing to minimise waste in research? Lancet. 2017 Mar 11;389(10073):1006-1007. doi: 10.1016/S0140-6736(17)30657-8.

Response 4: Thank you for the suggestions. We found the publication by Nasser et al. particularly relevant and we now cite it in the manuscript (page 18):

“This could particularly resonate with funding organizations. For instance, as part of its efforts to minimize waste in research, the National Institute for Health Research (NIHR) requires systematic reviews of existing evidence as pre-requisite for any new research [35].”

Comment 5 It would be helpful to include the years searched in your literature review described on p.7.

Response 5: Thank you for bringing this to our attention. We have added the search year of the literature review (page 7):

“We initially ran the search in June 2014 followed by an updated search in March 2015.”

Comment 6: There appears to be a small contradiction in the account of the number of people engaged in the activities of Group 1 of Step 3. In the Methods on p.8 the text states: 'we shared the draft tool with six international experts…..'; in the Results on p.10 you state: 'Group 1 involved four participants'.

Response 6: Thank you for pointing this discrepancy out. The correct number should be six. We have fixed it accordingly (page 11):

“Group 1 involved six participants”

Comment 7: While you correctly acknowledge that 'the tool could benefit from additional real-life testing in different contexts to enhance its generalizability' (p.16), I think there needs to a somewhat more explicit acknowledgement of the limitations. For example, it appears that just
three policymakers were involved in the pilot testing. Additional pilot testing would probably have been useful because there are a few questions that currently do not seem to be well-phrased or provide an entirely appropriate definition related to HPSR (eg, Module 1, question 1), and others that some might view as controversial and potentially not appropriate for a prioritisation exercise (eg, Module 1, question 7; Module 2, question 8). Perhaps the account of the limitations could identify areas that might benefit in particular from additional real-life testing.

Response 7: Thank you for your helpful feedback. We agree that this is a limitation of the tool and we now point to that on 3 occasions:

We a have added the following statement to the abstract:

“We invite others to contribute with additional real-life implementation of the tool.”

We also point to the following text in the discussion section (page 17):

“While some of the items may not be applicable to all settings, we attempted to address this by following an inclusive approach in determining the final selection of items to allow customization to the user’s needs. Nonetheless, the tool could benefit from additional real-life testing in different contexts to enhance its generalizability. In fact, we are planning to use the tool in priority setting exercises to identify priority questions at both the national and regional level.”

We also have the following text in the conclusion of the full text (page 19):

“We encourage people involved in health systems and policy to use the tool and researchers in the field to conduct further testing within their own contexts, as a contribution to refining the tool.”

On the other hand, we took advantage of the revision period to obtain additional input. Based on the input received, we reworded some of the items to improve clarity (see table 1, pages 14-15, and the complete tool in Appendix 3). These changes were based on further discussion among team members following inputs from experts attending GESI webinar series and 2017 Cochrane Canada meeting.

We have added the following to the methods section (page 10):

“We obtained final feedback on the general organization of the tool and the wording of the items from two separate groups: (1) participants in a workshop on priority setting at the 2017 Cochrane Canada meeting; [26] (2) participants in two consecutive webinars held by the Global Evidence Synthesis Initiative (GESI) [27].”

We have added the following to the results section (page 13):
“Based on the final feedback on the tool, we developed signaling questions for each item in order to minimize variations in interpretation. We also reworded some of the items to improve clarity. The discussions highlighted the importance of keeping the use of the tool flexible in terms of what items to include or omit.”

“Users can customize the tool to their needs, by omitting items that may not be applicable to their settings.”

We have also added the following to the methods section of the abstract and the full text (pages 3 and 8, respectively):

“We followed an inclusive approach in determining the final selection of items to allow customization to the user’s needs.”

In addition, we have added the following paragraph to the discussion section (page 16):

"Users can customize the tool to their needs, by omitting items that may not be applicable to their settings. We also developed a user manual that provides detailed guidance on how to use SPARK tool, along with signaling questions."

Please note that as part of the feedback, participants in the GESI webinars were in favor of retaining item 7 of module 1 and item 8 of module 2 particularly since these are answered by different audiences. However, they suggested rewording item 7 of module 1.