Reviewer’s report

Title: Effectiveness of a decision aid for promoting colorectal cancer screening in Spain: a randomized trial

Version: 0 Date: 23 Nov 2017

Reviewer: Adam Dunn

Reviewer's report:

Thank you for the opportunity to review this manuscript. The authors present the evaluation of a web-based decision support tool for colorectal cancer (CRC). The strengths of the research include the clarity of the presentation, the clear manner in which the limitations and constraints of the study design are presented, and the survey of the specific concerns of patients, which was nice to see. I was unable to assess the actual content of the decision tool, and I did not see whether the patients were presented with the rates of false positives, false negatives, and the potential risks associated with population level screening as part of the decision tool. I only have general suggestions and very minor suggestions for corrections in the presentation of the results.

Major comments/suggestions:

1. While it would have been interesting to examine the patients intentions pre and post intervention to see the proportion that changed their intentions, I understand that it is not possible to go back and do this post hoc.

2. I note that the limitations are very clear and well described. Concerns I had about the issues with no inclusion of a "sham" comparator or an alternative to the decision support tool were addressed directly.

3. The analysis of the differences between feeling uninformed and answering knowledge-based questions directly is interesting - but I wanted to know more - can the authors speculate about the reasons in more detail? Was the amount of information inadequate, or is this related to typical issues in risk communication where people find it hard to judge risks based on how they are presented? It might be worth investigating the risk communication literature to examine this in more detail.

4. Overall, the authors should be clearer about the null results in the study. When reporting the significance, the results clearly indicate that there was no clear difference between the groups (and the limitations suggest why it might have been inflated in the DA group because of "novelty") but there is absolutely nothing wrong with concluding that there was very limited
evidence to suggest that the tool improved the intentions, likely because patients intended to undergo the screening regardless of the intervention and because the sample size may have been relatively small.

Minor comments:

1. Results: I think it should be "fewer women" rather than "less women".

2. Results: Avoid using "at the limit of significance" and saying "obtained a higher knowledge score". It is better to state that there was no clear evidence that the knowledge score was higher.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

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I am able to assess the statistics

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