Reviewer’s report

Title: Decision-making styles in the context of colorectal cancer screening

Version: 1 Date: 23 May 2019

Reviewer: Zoe Moon

Reviewer's report:

This paper compares different decision making styles and their relationship with CRC screening participation. It is likely to be of interest to researchers in the field of decision making. However the rationale for the study is currently not clear. e.g. in lines 112-123 there isn't enough explanation of why it is important to see what decision making styles people are using - how would this lead to development of education strategies and materials? Would different materials be produced depending on people's decision making styles?

Likewise, the discussion needs strengthening. The conclusion states "Although the differences are small, in view of informed decision-making, further research could focus on examining whether people's decision-making style is associated with their extent of making an informed and well-considered CRC screening decision." - it is not clear what this future research would be, or how it would differ from the current study. Similarly, there is little on how this current study adds to the literature base or what it can tell us specifically about how to improve uptake / the decision making process.

The results should state the percentage of those who attended screening in the text. This should also be highlighted in the discussion as the percentage seems high. Page 11 - it is not clear if the decision making styles were entered into a model together or separately? Can the authors please make it clear and explain the rationale for the approach. Entering the results into a table would make this clearer. As health literacy is associated with decision making styles it would be interesting to look at the interactions between these variables (or control for education/literacy in the regressions).

Minor comments:

- There should be a definition of CRC in the abstract.

- More detail on the content of CRC / CRC screening could be added to the background.

- Lines 94-97 - why is this particularly related to CRC screening?

- The majority of the ORs looking at screening participation by different decision making styles are quite small effects - this should be discussed.
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.

Yes

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

Unable to assess

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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

Needs some language corrections before being published

**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