Reviewer’s report

Title: Gender Differences in the Health Belief Model Predicting Colorectal Cancer Screening Uptake: A National Study

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Reviewer: Johannes Blom

Reviewer’s report:

Dear Editor and Authors,

I have had the opportunity to review the manuscript entitled:

"Gender differences in the Health Believe Model predicting colorectal cancer screening uptake: an national study”

Overall, I find the topic of the manuscript very interesting and the work performed ambitious, but I do have some remarks.

1. Firstly, my major comment is that there is need for much more detailed information about how CRC screening actually is performed in Singapore. When was it adopted? Organized? What is the target group? What are the tests recommended?

2. The is a lack of general knowledge of CRC screening and there is a need for a better structure of the Introduction. E.g. Second paragraph: “If detected early, CRC is curable and preventable...”: how can a disease be preventable when it is already diagnosed? I believe the authors refer to mortality. “Established screening modalities for CRC exist – namely...barium enema”. Barium enema is very seldom used and I suggest the authors to be more updated on current recommendations. There is a lack of quite important references, e.g. the European Guidelines, but even more important some other Asian studies.

Pls, describe the actual CRC screening in Singapore instead. I do not believe you screen 93 year olds (oldest female study participant)?

3. The manuscript only refers to USA and in one single study to Canada. As a reader I have difficulties to understand, e.g., the similarity between an organized screening program of the population of Canada and Singapore.

4. The Method with structured interviews is very ambitious. When performing such a study you really want to get the most out of it, but I believe that the three-fold aim of this study is a bit to shoot over the target. I would prefer the authors to be more precise about the design of the study. This is of importance discussing the internal- but also the external validity of the study. I do not really understand the second scenario encountered by the interviewer: resident is in, but non-eligible. The interviewer went on to the next neighbour with the same house type?
How many were this? There is definitely a high risk of selection bias. I would like a flow-chart presenting the study population.

Were the residents informed about the study in before hand and at what time they could expect the interviewer to knock on their door?

5. The definition of exposure need a better motivation – in northern Europe biennial FOBT is standard in CRC screening.

6. I suggest all the information about the study questionnaire in top of page 7 is demonstrated in a separate table (not in results) and not detailed in the text.

7. The Result section is too extensive. There are many results that are presented with no differences between genders. Look at the overall picture of the paper. Title – aim – conclusion and try to condensate. What are the major results of interest? I believe second paragraph page 9 is just the way it looks like in Singapore and is not a result of the study?

8. There are many variables studied. Some of differences by gender – of course – could be of statistical significance only by random. It would be relevant with a better hypothesis of differences between genders in the Introduction.

Statistical differences do not have to be clinical relevant. Highlight the important ones. The Malay females are a very good example and also discussed.

9. I believe the limitation you highlight – if people were screened or investigated due to illness is very important and needs to be more in detail discussed. Together with clarity of the target population of screening in Singapore this is the key to generalizability of the results into a screening setting.

I also have some minor comments regarding the text:

1. Be consequent with figures. If you use one decimal, do so even with 81.0% (see abstract).

2. Clarify participation by test. If 27% participate, 21% FOBT and 14% endoscopy? I believe some did both. Again, what does the screening look like in Singapore?

3. What is the * after ref 16 refer to?

4. Page 9, second paragraph – comparing between...

5. Communication last line page 13.

6. The conclusion should be shortened. What are the “punch lines”?

With very best regards

**Level of interest:** An article of importance in its field
Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I declare that I have no competing interests