Reviewer’s report

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

Version: 0 Date: 08 Jan 2018

Reviewer: Peter Loewen

Reviewer's report:

This is a fairly well-written report of an evaluation of a DA aimed at increasing awareness of and screening rates for CRC on the island of Tenerife.

Methods

"Computer-based simple randomization was performed by an independent researcher." RCT reporting best-practices (CONSORT) require additional disclosures: "Type of randomisation; details of any restriction (such as blocking and block size)", "Mechanism used to implement the random allocation sequence (such as sequentially numbered containers), describing any steps taken to conceal the sequence until interventions were assigned", "Who generated the random allocation sequence, who enrolled participants, and who assigned participants to interventions", "who was blinded after assignment to interventions (for example, participants, care providers, those assessing outcomes) and how".

The two centers were described as different in terms of access to CRC screening services. Was randomization blocked by center?

Disclose re: allocation concealment and blinding or lack thereof.

"reviewed the DA accompanied by a researcher" - reviewed it where? in the clinic? sitting beside them as they used the computer? on the phone while they completed it on their own computer?

"...in a web format that gathers information based on scientific evidence about CRC..." Since I infer that the DA does not collect any personal health information from users, "presents" might be a more appropriate verb than "gathers" here.

The URL, "www.pydesalud.com/toma-de-decisiones-encancer-colorrectal/", es "No Encontrado" so I was unable to review its content.

"Therefore, we instead used intention to be screened as a proxy instead"... recurring "instead".
The Methods do not disclose the differences in the intervention between arms to which participants were randomized. What exactly were the two groups exposed to for the study, what was identical between the arms, and what was different?

The primary outcome variable is appropriately specified. The secondary outcome variables should be specifically designated as such.

Results:

There are valid statistical arguments for and against using Yates' correction for continuity in this circumstance. Why was it used?

"When the same analyses were performed separately by subsample, in center A the difference favoring the DA was significant for both procedures" - Table 3 does not appear to show this. It shows non-significant results for both procedures for Center A with Yates' correction.

Table 4: re-check the means. On inspection, it seems improbable that the mean for row 1 is below 4 given the distribution of responses.

Discussion:

There are serious limitations to the "intention" outcome in this study, but the authors appropriately acknowledge them in this section.

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

No

**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.

Yes
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

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