Reviewer’s report

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

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Reviewer: Joaquim Felipe

Reviewer's report:

The article presents a procedure to assess the influence of the use of decision aid (DA) material to promote colorectal cancer screening, showing statistical results, applied to a group of primary care patients in Spain.

The text is clear and well written. The results are presented in a synthetic and clear way.

However, some key issues need to be resolved:

1) What is the original contribution of this study? The authors cite other papers (eg, references [17], [18] and [19]) that have already performed the same study, on the same disease or not. It was not clear what this work adds, comparing it to what has already been published.

2) How was defined the number of patients (107) who participated in the study? If the goal is to represent a specific population, there are statistical formulas to determine that number, taking into account the desired degree of confidence and margin of error, as well as the standard deviation or a proportion of belonging to category within the population. This number of patients seems to me not to be enough to generate reliable statistical results. In addition, the title of the article induces an expectation of being a study carried out nationally in Spain.

3) Also, the characteristics of the patients should be defined and presented in such a way that we had a clear definition of the scope of the study. Patients could have been stratified in, for example, age range, socioeconomic conditions, demographic conditions, clinical conditions, and so forth. With this, the study may get conclusions such as: "in a population with these characteristics…, the influence of the application of DA is this…," regardless of nationality. This allows further comparison of analyzes, thus giving a degree of importance to the study.

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.

Unable to assess

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

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

Acceptable

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