Reviewer’s report

Title: Description of complex interventions: analysis of changes in reporting in randomised trials since 2002

Version: 0 Date: 07 Sep 2017

Reviewer: Lee Aymar NDOUNGA DIAKOU

Reviewer’s report:

The study investigates the evolution over time of reporting quality of complex interventions and adds considerable insights to the existing literature on the subject. The distinctiveness of the work is that two different periods of five years separated by the publication of the CONSORT reporting guidelines have been chosen in a comparative way. Overall, there was no evidence of improvement of the reporting complex interventions.

The authors wrote the article in a way that demonstrates good knowledge of the international reporting guidelines and their related issues.

I make some comments here to prompt revision.

Background

Comment:

Page 3, lines 46-52: The authors stated that adequate description of healthcare intervention is required to foster applicability and generalisability. At least one reference of both aspects should be cited to sustain the author statement.

Comment:

Page 4, Lines 1-7: To facilitate the lay audience understanding, It may be better to use the same wording for the terms « non pharmacological interventions » and « non-drug intervention ».

Comment:

Page 4, Lines 14-17: « However testing of complex interventions […] is needed with clear descriptions of the content of both intervention and control procedures ». I completely agree with this. However, the authors should include an explanation or a reference related to this absolute truth based on previous works on the subject.

Methods
Comments:

Page 8, line 43 (data analysis) : The authors should specify the software used to carry out descriptive statistics.

Results

Comments:

Even if the study is ancillary to a Cochrane systematic review, the authors have to report a flow diagram of selected trial reports. In fact, as a methodological review, the figure will provide a global view of all applied inclusion criteria and restrictions considered in the method section (page 6).

Comment:

Page 9, lines 5-7 : the percentages of the « description of the comparator » reported in the text (40% Vs 34% for both times 1 and 2 respectively) seems to be different than those reported in table 1 for the comparator item (60% Vs 66% for both times periods respectively).

Comment:

Page 9, lines 14-19 : in the comparison of both time periods, it may be important to outline the significance of the percentage difference with a test.

Comment:

Page 9, lines 26-33 : as the authors used an overall quality score of 8 items to compare both time periods, how the related means were calculated should by specified in the data analysis section.

Comment:

Page 9, lines 38-43 : whether trials that were published in a journal follow a CONSORT guidelines may be a factor of a better reporting quality of the intervention (appendix). Please consider reporting this information in the result section with a post-hoc chi-squared test. This should also be outlined in the data analysis section of the manuscript.

Discussion

Comment:

Page 9-10, lines 59-1 : The authors have to use to same language to avoid spin. Indeed, as they reported to have found no evidence that reporting of complex interventions is improving, this should be written similarly in the discussion section.
Comment:

Page 9, lines 1-5: If the authors are mistaken in their reporting of percentages of the « nature of the comparator intervention or control » between the result section of the manuscript and the table 1, the impact of this sentence is not the same. This should be revised accordingly, with a focus on the right defective items (e.g. fidelity assessment as reported in the abstract).

Comment:

Page 10, lines 7-12: As mentioned in a comment above (see Results please), the impact of the CONSORT guidelines on the reporting quality of the interventions could be tested using a Chi2 test. If so, the authors have to revise this part of their discussion.

Comments:

Page 11, line 14: It would be better to delete or replace the term « Fourthly ». There are no other ordinal adverbs before indeed.

Page 11, line 33: please, delete the word « are ».

Comment:

Page 11, lines 35-40: Please consider the previous comment about the way to quantify the potential impact of CONSORT reporting guidelines on quality of reporting. The choice of not restricting by journal may not be a limitation consequently.

Comment:

Page 12, lines 17-29: The authors extended their discussion on the issue of under-reporting of different trial aspects in general. Although many studies did not use TIDieR tool to assess the reporting quality of (complex) interventions, there are previous significant reviews in the literature that assessed the reporting quality of both interventions and methodological criteria (over time) in trials. Therefore, the authors should refer certain of these studies for both pharmacological and non-pharmacological interventions in a comparative way.

Comment:

Page 13, line 7: It would be better to provide a brief conclusion section further in the text for a best clarity. If this is the case, the present paragraph may be entitled « implications and perspectives » with a reorganisation of the related arguments.

Comment:

Page 13, line 14-17: Since all the items (including the global score) were not only based on the CONSORT guidance (greater consideration of TIDieR in the extracted items), this statement
may be wrong. Indeed the mean's comparison is not suitable to accurately test the impact of the sole CONSORT guidance in this case.

Bibliographic references

Comment:

Page 14, line 52: For section consistency, the reference number 8 should be reported in the same style than the other.

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An article of importance in its field

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