Reviewer’s report

Title: Active ingredients are reported more often for pharmacologic than non-pharmacologic interventions: an illustrative review of reporting practices in titles and abstracts

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Reviewer: Stephan Dombrowski

Reviewer’s report:

Active ingredients are reported more often for pharmacologic than non-pharmacologic interventions: an illustrative review of reporting practices in titles and abstracts

Thank you for the opportunity to review the above manuscript which I read with great interest. The manuscript provides an in-depth analysis of reporting practices in titles and abstracts regarding a plethora of intervention features (with a main focus on ‘active ingredients’) comparing pharmacologic (PIs) and non-pharmacologic interventions (NPIs). It highlights some differences in reporting practice between PIs and NPIs taken from high quality journals, thereby illuminating areas where reporting practice could be improved in the future.

Major Compulsory Revisions

1. Given the focus on active ingredients, the authors could elaborate a little more on the definition they provide in the introduction of the paper. A few more illustrative examples would be helpful in addition to the two terms in table 2 and box 3, especially for NPIs. For NPIs and BCIs I am still unclear whether the authors refer to intervention techniques (e.g. behaviour change techniques for BCIs) alone, or would also include the theoretical mechanisms through which an intervention is hypothesised to exert its effects?

2. The manuscript might benefit from a stronger argument which supports the current review practice. Although title and abstract reporting practice is interesting in its own right (e.g. for systematic review purposes as the authors outline), the main question is whether this is also indicative of poor reporting within the full publication. Studies are seldom evaluated or replicated based on title or abstract alone.

3. The authors mention in several sections of the manuscript that NPIs are typically more complex in terms of number components including ‘active ingredients’. Given these (and many other) difference of these two types of interventions the authors might want to elaborate on how informative can such a comparison to strengthen the study rationale.

Minor Essential Revisions

4. “Papers which were not the primary report of the study (for example secondary
analyses of trial data) were excluded, as a full description of the intervention may legitimately not be provided in the title or abstract.” (p.7) – this argument might need revision as a full description will not be provided in the title or abstract for primary reports either.

5. Please provide details for random paper selection of the 210 studies to allow replication (p.8).

6. How were the different NPI categories created and defined? (p.9)

7. Is there overlap between the NPI categories (e.g. rehabilitation interventions might also be behaviour change interventions) or are these categories discrete? (p.9)

8. “The remaining 16 papers reported evaluations of various types of interventions (see Additional File 3).” – Additional file 3 does not contain any information of intervention categorisation (only details on publication, patient group and intervention target, sample size and number of sites). Categorisation information which would be a useful addition to this information. Given the focus of this manuscript, it might be useful to include active ingredients within this table - this would also go towards addressing my above concern (comment 1).

9. Given the ‘dropout’ of some of the studies, why did the authors not include further studies to arrive at a final sample 100 studies each for both overall categories, rather than having unbalanced numbers which makes comparison slightly more difficult?

10. All data reported in this manuscript have been extracted and categorised by one researcher only. The authors might want to mention this in the limitation section of the manuscript.

11. Minor point: Please remove track changes from additional file 3.

12. “We discovered that while ABM limits abstracts to 150 words [18]” – does this discovery mean that journals were not checked for abstract length before selecting them? This should be mentioned in the limitations section.

13. “A sensitivity analysis by removing the six papers published in ABM” (p.10). Does this mean that only 6 studies from ABM were included in the final sample (as additional file 3 would also suggest)? Why only so few, given that the journal was selected to contribute NPIs and BCIs specifically. This appears somewhat unbalanced given that random selection was employed. Is this by chance?

14. Overall, I find Table 2 difficult to read and containing some redundant information. I suggest to omit any columns with the number of studies not including a component as this information is not necessary. In addition, the authors can either report % of studies coded as ‘yes’, or state the number coded as yes reporting out of how many in the header of the table, or a note at the bottom. This would make a comparison between the two types of studies much easier. Please also indicate significant differences in the table. The authors might also want to think about putting table 2 in graphical form which would allow much faster processing of the information and would allow easy display of significant differences.
15. Also, why does Table 2 provide examples for some components and not for others, and are examples taken from PIs, NPIs or a mixture?

16. In principle I think the boxes are a good idea to illustrate some of the points the authors make throughout the manuscript. However, the current use of boxes can be improved. These are not easily understandable and frequently change in layout and often contain little information.

17. In addition, the example in box 4 does not underline the point that the authors want to make (same term in the title linked to different descriptions in abstract). The second abstract describes the content of motivational interviewing and merely mentions CBT without further elaboration. Thus, in the second abstract CBT content is not described beyond the mentioning of the label (at least in the provided excerpt). A more illustrative example might be beneficial.

• The authors mention one limitation, but need to expand this section elaborating on, e.g.:
  o Generalisability of findings
  o Single researcher abstracting and coding data
  o Word limit imbalance between target journals
  o Uncertain link between title/abstract reporting and overall study reporting
  o Limited comparability between PIs and NPIs

• Do the authors deliberately refrain from providing a recommendation for active ingredient reporting practices for titles/abstracts (in addition to recommending standard labels)?

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests