Reviewer's report

Title: Optimal database combinations for literature searches in systematic reviews: a prospective exploratory study

Version: 1 Date: 11 Nov 2017

Reviewer: Steve McDonald

Reviewer's report:

The paper is much better for the revisions the authors have made. The clarification of the types of reviews included in the sample will improve the applicability of the study's findings and provide a more nuanced interpretation of the results. There are still a few additional suggestions that the authors should consider.

Background

1. Para 1, sentence 2. Suggest additions IN CAPS: "The Cochrane Handbook, FOR EXAMPLE, recommends the use of at least MEDLINE and Cochrane Central and, when available, Embase FOR IDENTIFYING REPORTS OF RANDOMIZED TRIALS."

2. The last two sentences of paragraph 1 should come immediately before the Methods since they are describing the aims/objectives of the study.

Methods

3. Section on Determining relevant references of published reviews

Para 1, last three words of last sentence, to avoid confusion, I suggest you say "...to a particular study design" rather than "a certain publication type."

Results

4. Para 1: although the authors have added Table 2 and the sentence "An overview of the broad topical categories covered in these reviews is given in Table 2" I think it's essential that a brief summary is included here, such as "A third of reviews concerned therapy, a quarter etiology and the remainder concerned epidemiology, diagnosis, management and prognosis."
5. Section on Unique references per database, the sentence and statement "A highly recommended database for systematic review searching, Cochrane CENTRAL, is absent from the table, as it did not add any unique included references to the reviews in our research." requires additional context. Cochrane is only highly recommended for reviews of RCTs, i.e. only a small subset of the reviews in the study. A fairer statement would be to say something like "Cochrane CENTRAL is absent from the table, as for the five reviews limited to randomized trials, it did not add any unique included references."

Discussion

6. Para 3: you give one of the journals (Indian Journal of Positive Psychology) that published one of the RCTs not identified by Medline/Embase/Cochrane, what was the journal/source of the other missed RCT?

7. Para beginning "Performance of a search can be…” This doesn't seem to fit here. Either it should be incorporated earlier in the Discussion or included in the methods as part of the rationale for choosing recall as the primary outcome.

8. Para beginning "Many articles written…”

The sentence "However, when looking at individual reviews, the probability of missing more than 5% of included references found through database searching is 33% when using Google Scholar and 30% when Web of Science is used." I'm not clear what this means - are you saying when ONLY these sources are searched??

9. Section on Status of current practice of database selection

The table referred to here should be Table 5 not 4, please check.

Conclusions

10. I think Cochrane CENTRAL should be mentioned in the Conclusions, since reference is made to PsycINFO and CINAHL. Consider adding after the first (or second) sentence, something like (if you agree with the sentiment) "In spite of Cochrane CENTRAL not identifying any unique references, the number of systematic reviews of randomized trials in our sample was small, and thus we would continue to recommend that Cochrane CENTRAL is searched for reviews in which RCTs are the desired study design."
11. The sentence "Ignoring databases from the four key databases we identify will result in more precise searches with a lower number of results, but the researchers should decide whether that is worth the increased probability of losing relevant references." Suggest re-wording the first part of the sentence for clarity, something like "Ignoring one or more of the four key databases identified will result..."

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