Reviewer's report

Title: Towards a methodology for cluster searching to provide conceptual and contextual "richness" for complex interventions: case study (CLUSTER)

Version: 1 Date: 26 February 2013

Reviewer: Justin Jagosh

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Minor Essential Revisions

This is a worthy paper because it introduces new techniques to acquire contextual information about areas under investigation.

The following are some minor but essential revisions which will strengthen the paper.

1. The example used in the paper needs to be placed up front in the paper, rather than being introduced half way through. It needs to be clearly stated in the abstract that the concepts for cluster searching presented here arise from work done one review. I would prefer to read about the example first, before reading about the theoretical work done that arose from the experience conducting that review.

2. The manuscript needs headings and subheadings for clarity. One example for this is on Page 6, starting with the sentence 'Limitations of reporting...'. A heading could be placed for this section that reads, Thickness vs. Richness (or something related).

3. a table that has a definition of terms would also be very useful. some terms to be included could be 'Key pearl citation' 'Sibling study' and 'kinship study'

4. on page 5, half way through the second paragraph, starting with the sentence 'Where direct evidence from sibling studies...' -- this could be a new section. This section presents something quite different from what the abstract suggests -- to find companion papers to an identified study paper. here the authors are suggesting that there use in bringing in studies from a common context, but on different topics. It is a logical leap from the previous frame and needs to be better explained and referenced. I don't understand the sentence that ends with ...effectiveness studies that were conducted elsewhere from a qualitative study say in Bristol can illuminate an RCT performed in Manchester. What is the meaning of illuminate here? I am similarly confused by the last two sentences of that paragraph, which seem to suggest that qualitative studies illuminate RCTs. I suspect it is a minor issue of articulation.

5. need headings on pages 6/7.

6. do the authors have anything to say about the complication of appraising
methods within a cluster? and does this have any implication to inclusion/exclusion if taking a protocol-based approach? In other words, within each cluster there may be weak methods. How to contend with that?

7. I do not understand last paragraph on page 8: ...most useful candidate for identifying study cluster predates such endeavors.

8. Authors need to be more upfront about the relationship between berry picking and clustering. Can it be articulated at the start of the section on berry picking?

9. critics of berry picking also see it as biased (along with haphazard, ill-disciplined etc.)

10. page 11...'The value of cluster searching ' this should be put in the introduction

11. page 16 : can the idea of qualitative publication bias be explained better? I didn't quite understand it

12. I think the authors need to make it clear that clustering can be used to gather contextual data on one study, or help with theory mining for a theory-driven review -- these are two very different activities and the paper starts with a leaning toward the contextual data piece. I may be wrong, but I think the key difference to highlight is that clustering can help to bring in related 'companion' papers, as well as 'unrelated' papers which are supportive of theory building.

13. The authors make an assumption that it is better to mine for theories 'forensically' rather than 'magick' them. One could argue however, that taking theories identified by the publication authors on face value may not provide useful theoretical concepts for synthesis, and may, by consequence weaken the analysis. Theories are not evidence, so I do not see the rationale for an evidence-based theory development. Of course, the theory identified in studies can be useful, but if we are not open to the possibility that other theories, even ones produced through magick, can provide power to an analysis, then my belief is that we may be limiting our analysis. This is not a request to change what has been written on page 24, but just an interesting point of discussion/debate that needs to be had.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**
I have no competing interests to declare