Reviewer's report

Title: Change agency to promote evidence-informed health care: A realist synthesis

Version: 2 Date: 15 February 2013

Reviewer: Andrew Booth

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This is a clear exposition of the methods (with some exceptions see below) and usefulness of realist synthesis in investigating a complex phenomenon. It would be benefit from general attention to the clarity of language used, particularly in clumsy passive phrasings and complex sentences (which may be better expressed as two sentences in many instances).

The search strategies are impressively comprehensive and well-constructed. There are some very isolated inconsistencies in the search strategies e.g. omission of "opinion leaders" [plural or truncated] in those databases where "opinion leader" is used as a mapped term

Major Compulsory Revisions

1. While it is understandable that full details of the search strategy are in an online supplement it is clearly unacceptable to give us neither the names of these databases nor the disciplines (e.g. "health and nursing") to which the literature pertains in the main body of the text. Some indication should also be given in the text as to the types of terms being sought e.g. generic knowledge translation terms and/or the names of specific interventions.

2. "Preliminary screening of the article titles reduced the list of potentially relevant papers to 196." How? On what basis was the screening done? i.e. what were you looking for?

3. "incorporating thorough search methods" - ironically your review wouldn't meet these criteria! Your main text itself (and the Abstract) must meet your own criteria of "good enough"! You wouldn't have screened positive based on a "buried" Appendix.

Minor Essential Revisions

1. "within in a program of research" remove "in"
2. "affects" not "effect" (p. 5)
3. "In an overview " remove "In"
4. "The importance of local support [35,46,49] are emphasized" should read "is emphasized"
5. "mezzo" sounds like an Italian dish - I think you mean "meso-"?
6. "Recounts" works as a verb, however "recounts" as a noun as used by you has a different meaning i.e. to count again - Suggest you use the more familiar "accounts"

7. Update "in press" references where now published e.g. Ref 3.

8. The Search Strategy is now very dated (2007) - could the Discussion briefly mention any significant individual items of work that have subsequently appeared that confirm or gainsay their findings. AND/OR Add a note on search date in Limitations?

Discretionary Revisions

1. Abstract - The first sentence could be reversed i.e. "Change agency...." to make it more accessible. Not sure why "However" is used as it doesn't make a "contrary" point. " change agents' impact" is an inelegant construction and would be better phrased as "the impact of change agents" particularly as change can be either a noun or verb.

2. "which approaches work best" not "what" - also, later " exist about what strategies" should be "which strategies"

3. " However, the fact that there are interrelated cognitive, social and creative processes of evidence selection and construction, and a range of contextual factors and behavioural changes to negotiate in order to make effective healthcare decisions [1,2], the need to understand the relationships between such processes is highlighted. " - This is an extremely clumsy construction obscuring a very sensible point. Suggest this is phrased as "A decision maker needs to negotiate...." and a second sentence beginning "This fact highlights the need...."

4. "Unfortunately, the use of evidence reviews to inform and guide practitioners and policymakers in the implementation of healthcare interventions in practice has largely been of secondary importance [7]" - this sentence would benefit from greater clarity about importance to whom. Suggest "Unfortunately practitioners and policymakers have largely afforded only secondary importance to...."

5. " key related components that cannot be compromised or adapted" - I suspect they "can". Either "must not" or make it conditional "cannot be.....if the demonstrable effectiveness is to be preserved"

6. "While systematic reviews focus on minimizing bias, the details that relate to the complexity and context of interventions often become detached from the findings, which are then in danger of being overly simplified and even misleading" - This could be phrased more as a trade-off i.e. "Systematic reviews typically focus on the minimization of bias, often at the expense of the details that relate... which become detached from the findings and are then in danger...."

7. " traditional systematic reviews". Is there such a thing? "Conventional systematic reviews" perhaps? "Systematic reviews" would probably be sufficient given your point of comparison i.e. vs "realist synthesis".

8. " contrary to the earlier findings of Grol and Grimshaw, Grimshaw and
colleagues [16] found that”. This is a complex and misleading construction. I would suggest Grimshaw and his colleagues [16] reversed findings from an earlier review by Grol & Grimshaw [REF needed]"

9 "a systematic synthesis of the literature to examine the mechanisms by which such interventions work, and under what circumstances, has not been undertaken." - reverse from passive case i.e. "reviewers are yet to undertake a systematic synthesis......."

10. "four theories for examination were identified" prefer "four theories were identified for examination"

11. As well as benefiting from rephrasing in the active form "the research team considered" the following sentence would benefit from having the simple explanation first and the term second in each instance "In working with these theories, dose (what quantity of an intervention is needed), levels (target of intervention) and contextual factors (evidence of particular contextual issues shaping the intervention) were considered as overarching issues" i.w. what quantity of the intervention was needed (dose) the target of the intervention (level) etcetera (Maybe level requires more explanation here?)

12. "Several papers (n= 7)" Why not "Seven papers...."?

13 "A change agent who is positive" - the meaning of "positive" here is not clear - is this an attitude? an outcome? - I could be positive (in a third sense of affirming) and wrong!

14. " Embeddedness" - would "Degree of embeddedness" be more accurate as a variable? I.e. it is not really a binary feature which existing phrasing suggests, but a continuous one. In fact you yourselves use "degree of embeddedness" later!

15. "role model" is not a verb (although I would love it to become one!). Suggest "model the roles and practices they espouse"

16. "A number of papers" - where used specifically try to give the exact number e.g. "Five papers"; where being used loosely prefer "several" to avoid an impression of vagueness and imprecision.

17 "2 or more theories" - pseudoquantitative - you actually mean "more than one theory"? This would fit the nature of the Discussion more readily.

18 "a number of gaps" prefer "significant gaps"

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

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