Author's response to reviews

Title: A Realist Synthesis of Interventions and Strategies to promote evidence-informed health care: A Focus on Change Agency

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Version: 3 Date: 7 May 2013

Author’s response to reviews: see over
**Change agency to promote evidence-informed health care: A realist synthesis**

*Changes Made in Response to Reviewers’ Comments*

**Reviewer: Andrew Booth**

<table>
<thead>
<tr>
<th>COMMENTS</th>
<th>Response/Changes Made</th>
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<tr>
<td>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</td>
<td>We have added extra paragraphs (highlighted in red in the body of the document) to address this point.</td>
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**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. | We appreciate the need for more information in the body of the document and have added extra information to address this point. |

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? | We have added extra detail to address this point (highlighted in red in the body of the text) |

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. | We have included a flow-chart of the search strategy and the screening of articles |

**Minor Essential Revisions**

1. “within in a program of research” remove “in” | Changed |

2. “affects” not “effect” (p. 5) | Changed |

3. “In an overview” remove “In” | Changed |

4. “The importance of local support [35,46,49] are emphasized” should read “is emphasized” | Changed |

5. “Meso” sounds like an Italian dish - I think you mean “meso-”? | Changed |

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” | Changed |

7. Update “in press” references where now published e.g. Ref 3. | Changed |

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? | We have expanded the discussion to include contemporary research in this field. |

**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. | Changed |

2. “which approaches work best” not “what” - also, later “exist about what strategies” should be “which strategies” | Changed |

3. “However, the fact that there are interrelated cognitive, social and creative processes of evidence selection and construction, and a range of contextual
<table>
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<th>Change</th>
<th>Original Text</th>
<th>Suggested Change</th>
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| Changed| A decision maker needs to negotiate..." " and a second sentence beginning "This fact highlights the need..."" | "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...""
| Changed| Unfortunately, practitioners and policymakers have largely afforded only secondary importance to.... | "Unfortunately practitioners and policymakers have largely afforded only secondary importance to....""
| Changed| 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" | "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" |
| Changed| 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..."" | "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..."
| Changed| "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". | "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". |
| Changed| 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]" | "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]"
| Changed| 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......"" | "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......"
| Changed| four theories for examination were identified" prefer "four theories were identified for examination" | "four theories for examination were identified" prefer "four theories were identified for examination"
| Changed| 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.e. what quantity of the intervention was needed (dose) the target of the intervention (level) etcetera (Maybe level requires more explanation here?) | 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.e. what quantity of the intervention was needed (dose) the target of the intervention (level) etcetera (Maybe level requires more explanation here?)
| Changed| Several papers (n= 7)" Why not "Seven papers...."? | "Several papers (n= 7)" Why not "Seven papers...."? |
| Changed| "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! | "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! |
| Changed| 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! | "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! |
| Changed| "role model" is not a verb (although I would love it to become one!). Suggest "model the roles and practices they espouse" | "role model" is not a verb (although I would love it to become one!). Suggest "model the roles and practices they espouse"
| Changed| 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. | 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. |
| Changed| "2 or more theories" - pseudoquantitative - you actually mean "more than one theory"? This would fit the nature of the Discussion more readily. | "2 or more theories" - pseudoquantitative - you actually mean "more than one theory"? This would fit the nature of the Discussion more readily. |
| Changed| a number of gaps" prefer "significant gaps" | a number of gaps" prefer "significant gaps" |
**Reviewer: Vicky Ward**

1. Although the review process is described in detail in a previous paper, there does need to be more detail here in order to help the reader understand the process and findings of the review. Reading the manuscript, I found it hard to distinguish the reported review from a more traditional systematic review. This is further emphasised by the authors focus on the 'impact' of change agency on knowledge use in their review questions (rather than on the mechanisms per se).

   We have added more text to explain realist reviews and to clarify the use of the term 'impact' in a realist context.

2. Related to this point, I found the introduction and background difficult to follow. In particular, the background does not seem to add much to the introduction section. What is missing from both sections is a thorough justification of the focus on 'change agency'. Instead, the evidence on a range of different types of interventions (audit & feedback, computerised prompts) is outlined, none of which seems to clearly relate to the topic of this review.

   We have added further text and changed existing text to say more about how change agency has been widely implemented (examples from KB work in Canada, facilitation in the UK) but evaluation efforts have not been in proportion to its use in practice and need to determine whether and if so, how change agency interventions work.

3. As above, the method section needs to contain more detail relevant to 'realist' review.

   We have included more detail.

4. Overall, I find the findings section relatively weak and lacking in detail. It would be very helpful to see further detail and illustration of each of the points uncovered in the review. A table showing the key points alongside the relevant papers might help here, but as a reviewer I currently find it difficult to have confidence in the findings due to the lack of detail.

   We have added more detail about the findings but also have added additional files to show the thematic structures of the data as well as an illustration of the seven stage process of analysis and synthesis showing data extracts.

5. Related to this, I would like to see the authors unpack their definition of knowledge use further, since it is difficult to see how the characteristics of the change agent or the 'context' relate to 'impact'. In fact, the authors need to consider more carefully how the question of impact fits into the realist review process - it is my understanding that the process encourages a deeper theoretical understanding of precisely how interventions work. This does not come across clearly in the findings.

   We have provided definitions of terms underpinning our research questions/research (Box 1).

6. It is unclear to me what the authors mean by the 'characteristics' of the change agent. For instance, at times they discuss personal characteristics, such as age and a positive attitude. At other times they discuss what could be termed characteristics of the role itself (or at least the way the role has been set up) such as accountability and accessibility.

   See response to 5 above.

7. A similar point can be made about the 'setting' for the change agent intervention. I would like to see clearer definitions of 'setting' versus 'context'. Setting could mean the size of the team/group the change agent is working with, the type of organisation, or something more broadly to do with the culture of the team/organisation. At present there is unsufficient detail about these areas. Similarly the term 'embedded' (i.e. change agents being embedded in an organisation) is not defined and the lack of illustrative detail makes it difficult for the reader to interpret.

   See response to 5 above.

8. The lack of detail in the findings section carries through to the discussion and conclusions, which both need to be strengthened considerably on the basis of the findings.

   We have expanded the discussion and revised the conclusions made.