Reviewer's report

Title: Refining a taxonomy for guideline implementation: results of an exercise in abstract classification

Version: 2 Date: 9 November 2012

Reviewer: Byron Powell

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Major Compulsory Revisions:

1) It would be helpful if the authors cited a definition of implementation strategy (or provided their own). The definition would be helpful in differentiating guideline implementation strategies from behavior change interventions (as discussed on p. 17). It would also be helpful if the authors consistently applied the term “strategy” rather than alternating between terms such as “intervention” (as can be seen on p. 5). In my view, using “intervention,” while not uncommon, makes it very easy to confuse the clinical innovation with the implementation strategy.

2) Similarly, in the introduction of the paper, the authors use terms such as frameworks (it is unclear what is meant here, but I assume conceptual or theoretical frameworks), reporting guidelines, and taxonomies. This can be somewhat distracting (see next comment). Being very clear about what is needed, and how the current study addresses those needs would make the manuscript easier to read.

3) I do not understand how the lack of an “agreed and consistent framework” contributes to the low number of peer-reviewed research reports. Please explain in more detail.

4) I found the details and the examples used within the reporting guidelines discussion somewhat distracting (largely because many of them don’t specifically pertain to implementation work), and I think this could be shortened substantially. Simply focusing on the notion that there is a need for more sophisticated reporting guidelines focusing specifically on different implementation designs (Eccles et al., 2009 – Reference 5 in the current manuscript) and that there is a need for better reporting of implementation strategies (Michie et al., 2009 – Reference 6 in the current manuscript) seems sufficient.

5) Even if the authors do decide to limit the discussion of reporting guidelines, they may want to mention the WIDER Recommendations since they explicitly address the level of detail in reporting interventions (which could include implementation strategies.


6) The authors' point regarding the need for consistent terminology is well taken; however, it is also important to maintain the importance of describing
implementation strategies in sufficient detail (Michie et al., 2009). In fact, even when relatively consistent terminology is used to describe a strategy (take audit and feedback for example), there are many different forms that strategies can take. This is one potential reason for variations in the effectiveness of implementation strategies. For descriptions of the potential variations in audit and feedback, see:


7) On page 8 the authors cite a few topic-specific taxonomies of “interventions” that have been reported in the literature. There are several others that could be cited (many of which are more broad). At the risk of self-promotion, the authors may want to look at an article that our group has published that compiles strategies from the health and mental health literature (http://www.ncbi.nlm.nih.gov/pubmed/22203646). This article provides a table of 41 reviews and compilations of strategies (including sources you mention such as the EPOC and Cochrane Consumers and Communication Review Group’s taxonomies), and presents an expanded compilation of implementation strategies and definitions. In my view, it will be particularly important to explicitly highlight the strengths and weaknesses of the author’s taxonomy’s in light of other taxonomies and compilations (including the EPOC data collection checklist).

8) The process of developing the taxonomy could be specified more clearly. For instance, was the first version of the draft taxonomy nothing more than the EPOC data collection checklist, or was this altered in some way prior to testing the feasibility using the 2009 G-I-N conference abstracts? What was the process of applying it to the 2009 G-I-N conference abstracts? What were the results that were then discussed amongst three authors? Was there an explicit process used to determine which strategies to eliminate or add, how to categorize them, and which categories to add? Was the level of agreement between the five raters calculated? If not, were there any issues in coming to consensus regarding which strategies to include and exclude? How did the authors generate definitions of strategies? On page 14, the authors report that the taxonomy was assessed through feedback at a conference. Was the taxonomy then edited accordingly?

9) It seems as if the paper (and the resulting taxonomy) may have been strengthened substantially if it was informed by the literature. For instance, the authors note, “some categories were considered absent,” (p. 10) but there is no step of the process in which the published literature is used as a way of checking either the EPOC taxonomy or the revised taxonomy for potential omissions. The authors even mention some potentially helpful additions, such as the Cochrane Consumers and Communication Group taxonomy. It is not clear to me why the authors did not use this source and other sources from the literature to supplement the taxonomy prior to (or even after) applying it to the abstracts.

10) Similarly, the refined taxonomy may have been strengthened if the authors made an effort to reach out to a broader sample of implementation science
experts who might provide comments and suggestions.

11) On page 8, the authors note that EPOC is not appropriate as a taxonomy for guideline implementers to select strategies. Please state why this is the case.

12) For readers who might be unfamiliar with the G-I-N conference/organization it might be helpful to include a description as well as a note about the scope of the research presented at the conference. This could include the different types of settings in which these guideline implementation studies were conducted. Along the same lines, I think it will be important for the authors to specify how broadly applicable the refined taxonomy might be (i.e., to various professions, settings, geographic regions, etc.).

13) The manuscript would be strengthened if the authors would provide justification for the use of 1) the G-I-N conference and 2) abstracts as the most appropriate sample in which to test the refined taxonomy. The authors note the limitation of using only abstracts to assign classifications for implementation strategies. In my view, this limitation is understated. While it may be true that abstracts should provide enough detail to classify implementation strategies, it is unlikely that they do. It has been noted that even the full texts of published articles lack adequate descriptions of implementation strategies; thus, one would expect this to be even more of a problem with abstracts. It is highly likely that many of the studies actually involve more implementation strategies than are discussed explicitly in the abstract. The manuscript would be strengthened substantially if the taxonomy were applied to a sample of full-text articles.

14) Clarity would be enhanced if the results and the discussion section were presented separately.

15) On page 16, it was not clear to me how a taxonomy might reflect the linear, cyclical, or multi-dimensional nature of implementation more accurately. Providing a concrete example would help the reader conceptualize the authors’ vision of next steps.

16) It would be helpful to know the specific strategies that could not be classified under the current refined taxonomy. Also, is there a reason they shouldn’t be incorporated into the taxonomy in the current manuscript (i.e., a 3rd iteration of the taxonomy)?

Discretionary Revisions:

17) p. 5, par. 1 – The authors note “the dearth of systematic evidence to support effective guideline implementation…” This needs a citation, and while the evidence is indeed imperfect, the authors may want to cite the growing body of evidence. See for instance Grimshaw et al., 2012 article in Implementation Science, “Knowledge translation of research findings.”

18) The authors may wish to add a reference to Ann McKibbon’s article, “A cross-sectional study of the number and frequency of terms used to refer to knowledge translation in a body of health literature in 2006: A Tower of Babel?” I
think the article makes a great case for the need for more consistent terminology.

19) On page 18, the authors reference the possibility of a well-indexed database of implementation studies. One example of an effort to do this (I don’t not aware of how far it goes) is McMaster’s Health Systems Evidence website: http://www.mcmasterhealthforum.org/healthsystemsevidence-en

20) It may be that a figure depicting the authors’ process, each step involved, and the results (e.g., how many strategies retained or altered) may be helpful.

21) A table or figure that summarizes the entire taxonomy, and how it differs from the original EPOC taxonomy may highlight its worth and utility to readers.

22) Might the utility of the taxonomy be enhanced if the authors provided example citations from the literature?

23) On page 12, the authors discuss decisions surrounding the use of multifaceted strategies. The book Knowledge Translation in Health Care provides a nice summary of the mixed evidence to support the use of multifaceted strategies (p. 101 and 109). I think the potential reasons for these mixed results fits nicely with the authors’ findings from the G-I-N abstracts.

24) The authors note that as several groups and organizations develop taxonomies, better collaboration is needed. If they have any thoughts regarding potential avenues for collaboration and consensus it would be interesting.

**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 declare that I have no competing interests.