Reviewer's report

**Title:** Measurement of a model of dissemination for health care: Toward a testable theory

**Version:** 3  **Date:** 21 April 2012

**Reviewer:** Laura Damschroder

**Reviewer's report:**

This paper is vastly improved and much easier to understand. It provides a much needed approach for operationalizing Greenhalgh’s “memory aid” model. For several definitions, I suggest that more clarification is needed and for a few, I challenge the definition presented. In the latter case, more rationale or explanation is needed for the chosen definition.

**COMPUSORY REVISIONS**

1. It would be good to emphasize that you have developed a *mixed methods* approach of measurement using quant data through survey and administrative data and qual data through interviews and other artifacts (e.g., review of policies)...especially in the discussion.

2. After reading the cover letter from the authors, I now understand the context better under which proposed operationalization of constructs were developed. I wouldn’t normally rewrite a paragraph as part of a review but I think it’s important to be very clear and it’s easier to write what I have in mind rather than describe the purpose:

   ---“Our research group set out to operationalize the constructs in Greenhalgh et al.#s [1] model for use in a quantitative survey and a semi-structured interview guide. The present paper provides the background, rationale, working definitions, and measurement of constructs. This work was done in preparation to study a national roll-out of two evidence-based psychotherapies for post-traumatic stress disorder (PTSD) within the Department of Veterans Affairs (VA) [9]. Although the questionnaire and interview guide were developed to assess factors influencing implementation of specific treatments for PTSD, they can likely be adapted for assessing the implementation of other innovations. This systematic effort represents a first step at operationalizing constructs in the Greenhalgh model.”

3. Include the full list of survey items and the interview guide as supplemental files

4. Many (most?) sections e.g., Adopter Characteristics, Communication and Influence are out of order with Table 1

5. With respect to cosmopolitanism, the inclusion of affiliations and attendance at conferences implies that you adopted the concept of subjective/identity – but it’s unclear. This needs more clarity/explanation about how you go from Pilcher’s definition to the measures you chose.
6. The “…structure and quality of both formal and informal professional networks…” comes on the heels of Prior knowledge, beliefs, attitudes, perceptions … is the former a measure of the latter or another separate measure? Also, the latter list (starting with prior knowledge, beliefs…) is not listed in Table 1; I don’t agree that these are hard to measure – a bit more rationale is needed as to why you came to this conclusion.

7. Page 11: “There are several ways that peer/opinion leaders have been assessed [3, 69]. The most common is to ask respondents from whom they seek information and advice on a given topic. Similarly, this type of name generator response is used to map social networks.” # “similarly” needs to be deleted? The names are used to map? It isn’t a “similar” process to the first sentence.

8. I believe “boundary spanners” can be internal or external. It appears you are referring to external. This construct should be qualified as such.

9. Can Change Agents be internal or external? Elsewhere, this often refers to individuals who facilitate/coach/etc who are external to the organization

10. Homophilous is defined as people with similar socioeconomic, professional, educational, and cultural backgrounds – and that like people tend to associate with like people along these lines. The definition in the text is not consistent with this definition (e.g., it is not about whether people agree about implementation) and the definition in Table 1 is ambiguous

11. It would be useful to refer to different types of opinion leaders: expert and peer instead of having separate entries for Peer Opinion and Expert Opinion – or at least relate these together better. Also, the labels should be a role not an opinion (i.e., Peer Opinion Leader, Expert Opinion Leader).

12. Descriptions around change agent, expert opinion, and peer opinion are muddled by your last sentence in the Communication and Influence section. Pull the descriptions for these together and then describe, compare, and contrast.

13. I wholeheartedly agree with your first sentence under System Antecedents…!

14. Organizational Structure is referred to as “this construct” but in fact Org Structure, is made up of several constructs or sub-constructs. This needs to be clarified in the text – in part because this section again, does not follow the order of Table 1; construct measures are muddled.

15. The relationship between change agent and decentralization should be noted in Table 1

16. All of the sections related to inner context will benefit greatly from re-ordering to match Table 1 and deciding what to call top level constructs(?) e.g., Absorptive Capacity, versus individual line items as constructs or sub-constructs (e.g., enablement of knowledge sharing)…and please use consistent/exact terminology between Table 1 and the text.

17. Page 16, you say that incentives and mandates have no measures but at the end of the intro, you list this as an example benefiting from using admin data.

18. Why does environmental stability “…clearly overlaps with inner context”? –> state that e.g., funding clearly translates into resources that are available within
the inner context

19. Page 17, first full paragraph: “Internal communication and external collaboration were derived from previous questions assessing communication and influence (i.e., peer opinion) and outer context listed above…” # note this in Table 1 under the appropriate constructs

20. Page 18, first paragraph: “It will be essential, of course, to test the theory through the use of our two measures…” What theory – Greenhalgh’s model? How will you do this (just a quick 1-2 sentences). What two measures? Do you mean 2 types/sources of data (quant through the survey and qual through interviews)?

21. Page 19: “Additionally, as indicated in the assimilation section of the model, the implementation process includes a soft periphery that may only be captured in the larger narrative. This construct appears immeasurable as a single factor.” – this needs clarification. There is no “Assimilation” section in Table 1 and readers will not necessarily know what “soft periphery” is and how/why it relates to implementation process.

MINOR REVISIONS:
1. Cite #3 is a duplicate of cite#2
2. Last paragraph, page 5, 2nd sentence needs editing
3. Is there a footnote 2 somewhere. Twice, you have a superscripted “2” but I don’t see a note for it. I don’t think you mean for it to refer to Roger’s DOI listed under reference #2
4. In Table 1, suggest putting “N/A” or “None” for blank cells
5. Move last sentence under Methods to first paragraph under Results
6. Can manuals/materials be included in operational definition for technical support in Table 1 to be consistent with text and be more concrete than just listing “support”
7. Change “adopter” in Table 1 to “Adopter Characteristics” for consistency with text
8. The very last sentence under Adopter characteristics refers back to tenure and skills – needs to move up to your prior comments on these constructs.
9. I would not refer to Greenhalgh’s model as “parsimonious” – but it is comprehensive and evidence-based.

Level of interest: An article of outstanding merit and interest 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