Reviewer’s report

Title: Designing and implementing two facilitation interventions within the 'Facilitating Implementation of Research Evidence (FIRE)' study: A qualitative analysis from an external facilitators’ perspective

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Reviewer: Sarah Knowles

Reviewer's report:

This is a valuable paper, which explores in detail the challenges to implementation of a facilitation intervention in an RCT. The specific findings regarding pragmatic and professional challenges to facilitation will be of interest to those in improvement science and implementation research. More broadly, the paper acknowledges and explores the tension between fidelity and adaptation in implementation trials, which is increasingly recognised as a key challenge. The authors provide useful insights, for example regarding fidelity in terms of mechanisms of action rather than in terms of descriptive content (the latter of which may need to be altered to achieve the former). However, I think the discussion regarding this tension could be more explicitly addressed in the results, particularly through directly including and reflecting on the experiences and perceptions of the External Facilitators who were also trial leads.

By more directly including the views of the EFs, the paper would:

a. Methodologically, more explicitly and transparently address interaction between the independent analyst and the EFs (as they are study co-authors and so presumably involved in agreeing interpretation and reporting?) - for example, were there consensus meetings to discuss issues arising from the data, did the EFs provide retrospective accounts or reflections, and were these captured from existing data or emerged through the co-analysis process?

b. Conceptually, enable more explicit data to be provided regarding the perceived tension between fidelity and adaptation. Currently, this is focused in the discussion, and bringing in the perspectives of the EFs as part of the data and analysis would enable this to be considered throughout, and more directly make the fidelity/adaptation issue part of the results. The data could for example elaborate on how particular adaptations were considered which would have enabled the team to overcome some of the problems encountered, but what was perceived as a barrier to this in terms of fidelity (eg. would it have threatened distinction between type A and type B with reference to Table 1, or was the problem how to explain and report diversions from the original protocol)? This would also address more
clearly which problems the authors think that adaptations could have addressed and how, compared to contextual problems indicating a more fundamental mismatch between the study aims/design and the reality (eg. Would lack of availability of IFs meeting recruitment criteria be the latter, or would the EFs have been able to attempt to revise the role descriptions, or provide more specific training to address gaps?)

Addressing these tensions of fidelity and adaptation and how they were dealt with would also mean the paper would be relevant to implementation trials more generally, beyond specific lessons relevant to provision of facilitation. I hope the authors find these comments helpful.

I have some further minor suggestions to be addressed at the authors' discretion:

- Introduction - more (brief) detail about the previous process evaluation could be provided to enable the paper to standalone for readers and to make clear the distinct contribution of this paper.

- Line 74-77 page 4 - unclear if this missing an "and" or if this lists 3 rather than 2 issues.

- Paragraph 2 starting line 79 - the authors could specify if was always intended to conduct this analysis or was emergent from original process evaluation.

- Discussion subheadings could signpost/distinguish 'implications for facilitation/delivery of improvements' and 'implications for research design'

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