Reviewer's report

Title: Clinical mentorship to improve pediatric quality of care at the health centers in rural Rwanda: a qualitative study of perceptions and acceptability of health care workers

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Reviewer: Joanna Armstrong Schellenberg

Reviewer's report:

Major Compulsory Revisions
None

- Minor Essential Revisions

1. Abstract: Relatively little information is given here about the methods and results, and a relatively large proportion of the words relate to the background and conclusion. I think the authors should give more information about the methods and results here, and reduce the space given to other section.

2. Abstract -- "Results from a separate quantitative study have demonstrated substantial improvement in IMCI quality of care after two years of the clinical mentorship and enhanced supervision at health centers (MESH) program, but little is known about health care workers’ perceptions about the strengths, weaknesses, and overall acceptability of this innovative program" In my view, the current study can "stand alone" more -- this amount of detail about the other paper (reference 15 and 18) is not needed in the abstract

3. Literature on IMCI, background. "IMCI is an algorithmic approach to pediatric visits intended for use in countries with infant mortality of 40 per 1000 live births or greater [6]. The protocol aims to improve three main components: case management skills of health workers, health system infrastructure, and family and community practices. Evidence from various countries showed that IMCI can lead to significant improvement on under-five clinical quality of care [7, 8]." Reference 6 is a study from Tanzania; 7 and 8 are both from South Africa. These seem an odd selection to support the text here. There are numerous papers from the multi-country evaluation of IMCI which could be relevant -- including Uganda, Tanzania, Peru, Brazil, and Bangladesh. A list (not up-to-date, sadly) is available on http://www.who.int/imci-mce/publications.htm

4. Use of the word "significant" -- Despite the fact that this is a qualitative study, it might be better to use an alternative where possible, because readers will not otherwise know if you mean statistical significance or public health significance
... three examples: -- page 4 "significant improvement"; -- page 4 "significant under-5 mortality"; -- pages 7-8 "no significant differences in meaning"

5. The accompanying paper giving results of the quantitative evaluation refers to 'nurse mentoring' -- it might be helpful if the two papers used the same term.

6. It looks as though reference 15 and reference 18 are the same.

7. The claim of "substantial improvement in IMCI quality of care" (reference 15/18) seem to be based on an increase of about 20 percentage points over time, assessed by the clinical mentors themselves, in assessments completed and in children correctly classified. There aren't any results reported on sick children correctly treated [for example] ... so I feel that the authors may be over-interpreting the findings in saying that quality of care is substantially improved. Moreover, I don't think this claim is necessary for the current paper.

- Discretionary Revisions

8. Background
"health centers (HCs)" -- this is an international journal, and many readers will not know how this compares with primary care providers in other settings. A few words on the levels of health facilities in Rwanda and what type of care they provide would be useful.

9. Background
Not all readers will understand what is meant by quality improvement (see for example Walshe K Int J Qual Health Care 2009;21:153-159) -- a reference, and mention of PDSA cycles, might help.

10. Setting
A little more information on the context would be helpful -- maybe this is the place for the information mentioned above about the structure of the health system in Rwanda. Also, for example, what is the approximate population of each district? What is the median distance from rural households to the nearest health centre?

11. Participants-- limitations
Information from providers who did NOT have IMCI training or did NOT participate in MESH would have given very valuable insights -- especially as it looks as though the majority of health care providers did not participate. This could be mentioned as a limitation in the discussion.

12. Page 7 -- A set of open-ended questions were prepared to guide the interviews and FGDs -- would these be available on request?

13. Page 8 "A list of codes reflecting specific study objectives was pre-defined by study investigators" -- is this available? To what extent is it the same as the five areas identified as key components, mentioned in the results?

14. Page 8 -- Was the PI one of the authors? If so, give initials? Also, there is a
15. Ethics -- Were information sheets about the study given to participants? Was consent verbal, rather than written? Why was there no attempt to seek written informed consent?

16. Results -- "Five areas were identified as key components of the success of MESH, which contributed to acceptability and impact" … if these were pre-defined, then to avoid any confusion it might be good to remind the readers of this here.

17. Results -- I would be interested to read more about emerging themes -- those issues that were not pre-defined … maybe the authors could bring these out more specifically?

18. Discussion -- Could the authors add a brief comment in the discussion about the extent to which MESH is sustainable, affordable, feasible? -- if they cannot comment on that directly, maybe they could add a comment suggesting what research is needed to answer these key questions?

**Level of interest:** An article whose findings are important to those with closely related research interests

**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