Author’s response to reviews

Title: 'Practice so that that skill does not disappear': Mixed methods evaluation of simulator based learning for midwives in Uganda

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Author’s response to reviews:

Dear Dr. Maier:

Thank you for forwarding the reviewers’ comments, which offered helpful feedback, and for providing the opportunity to submit a revised manuscript. Following is a point-by-point response, and we have attached the revised version of the manuscript.

We are also happy to report that the main findings paper from the parent study has been accepted for publication in Plos One, and we are providing a copy of this to help the reviewers to understand how this manuscript fits with the results that are being reported elsewhere.

We look forward to receiving your response.

Sincerely,

Emma Williams and co-authors
Reviewer reports:

Reviewer #1:

Thanks for the opportunity of reviewing this paper. It's a great project and this sub-study looking at ways to encourage more low-dose high-frequency simulation is a valid area for focus. It's on the whole well written and adds some useful knowledge to this area that will be useful for implementation of other similar programs.

One small grammatical point - I believe that "training" is a verb and not a noun, and that there is no plural form. Perhaps "training sessions" would be preferable.

Response: We appreciate this input and have edited the paper so that training is only used as a verb.

Were the simulation "practice sessions" supervised/guided at all in study arm 1?

Response:

In both HBB and HMS, all providers were asked to practice, and short practice session guidance was provided to all facilities in all study arms. In the full and partial study arms, a peer or mentor was designated to supervise or guide the practice sessions. In arm 1, simulators and sessions for practice were left with the in-charge of maternity with the information that we requested all providers to practice. Whether practice happened depended on whether providers took the initiative to practice on their own or if someone at the facility took the initiative to organize the sessions, then either supervise or designate someone else to supervise. The qualitative findings suggest that in health centers in the control arm that achieved higher practice coverage the facility in-charge voluntarily took on the role of the peer practice coordinator.

Figure 1 is low-res and I can't really read it.

Response: Apologies, we have uploaded a higher resolution image with the revision.
More information could be included on the qualitative methods, especially with respect to reflexivity and the study team, some aspects of study design (how were participants approached, how many refused to participate, setting of data collection, presence of non-participants, demographic data of the sample), data collection (are there any repeat interviews, how long were the interviews), analysis (how many data coders were there)

The use of/adherence to reporting guidelines such as COREQ may help with this. See https://academic.oup.com/intqhc/article/19/6/349/1791966

Response: We have revised the methods section accordingly. We did not track refusal rates in a way that could be reported but there were few because the data collectors tried to accommodate participants’ schedules; this has been explained in the methods and noted in the limitations section of the discussion. We have elaborated on the setting, the absence of non-participants, and clarified that participants were only interviewed once. We did not collect demographic data in the practice logs, to minimize burden on participants. We have added information about the qualitative participants’ characteristics in the results section. The team included five coders; see the paragraph under “Qualitative Data Analysis” heading.

Reviewer #2:

Study title

This statement isn't necessary, it can be more made shorter and clearer. There seems to be a spelling error too. A statement like "Practice makes perfect." Mixed methods evaluation of simulator-based practice for midwives in Uganda would be a better alternative.

Response: thanks for this suggestion. We have shortened the title but have avoided using the word perfect since the main findings paper shows that some performance gaps remain even after the capacity-building activities.

Background: Your background should have statistics on maternal mortality indicators. Deaths due to postpartum hemorrhage and neonatal asphyxia and any level of training in this area. There are a number of training for example didactic, facility based, etc., why did you think simulation is a better approach, some literature would guide the reader better.
Response: We have revised this section based on this feedback.

Study objective

Please re-write this statement. Was the objective of this study to evaluate or determine. This seems confusing.

Response: The main/parent study was an evaluation with three study arms; the main findings manuscript has been accepted for publication, and we have uploaded it for your reference.

Study methodology:

1. The information below doesn't illustrate a study design. Solution-Please review State the design explicitly and then you can describe it.

Response: Thank you for raising this concern; the beginning of the methods section has been edited to try to clarify the study design for both main study and this mixed methods study.

2. Does this study adhere to all the prerequisites of a trail? If yes, then what type of trail was this? If no, then drop it and re-write the statement.

Response: Apologies, it is unclear which statement motivated this comment. The main study met the trial registration prerequisites, and we have listed this information since the journal requests it, and it may be of interest to readers.

3. Where is arm1?

Response: It’s unclear which sentence(s) relate to this comment, but the third paragraph, first sentence under the heading “study setting and design” was edited to include information about study arm 1.

4. Based on the methodology, this isn't and evaluation but a qualitative-cross sectional study. Please verify. An evaluation should have a before and after component.

Response: We respectfully disagree that evaluations must include before and after components.
Evaluations can have many designs. In quantitative studies, there are designs with before and after-program measurements. There are also evaluations that are called “post-only control group design” (see Fisher and Foreit, page 51), which is similar to this qualitative study.


Qualitative methods experts explain that “qualitative methods can be used to follow-up on quantitative research, particularly where this presents findings that need further explanation or where more detail or depth about a phenomenon is needed.” (Ritchie and Ormston, page 43)


5. This study wants to understand the effect of training sessions (LDHF) on delivery skills that can prevent postpartum hemorrhage. I expect to an assessment of this skills before the training and after the train

Response: Yes, this important information is included in the main findings paper (Evans et al, Plos One, in press), which we have provided for your review. For this mixed methods sub-study, the purpose was not to understand training effects but to: a) to describe factors contributing to provider’s participation in or uptake of LDHF practice, as identified by birth attendants and managers and b) to explore differences among hospitals and health centers in factors that motivated or discouraged provider’s participation in or uptake of LDHF practice.

6. There is too much redundant information in this section and it need to be organized systematically.
Response: Apologies, but it is unclear to which section this comment is directed. We would need more specific information in order to address this comment.

7. I think you should simply tell us which tools were used to collect data to answer the questions/objectives. How the key variables were captured. State the key variables and how they were collected.

Response: For the quantitative tools, the key variables are described under the heading “Data Analysis of Structured Tools” as follows:

Several indicators were compared across study arms: 1) the proportion of facilities submitting a provider practice log following HMS and HBB and the combined practice period; 2) the mean number of practice sessions and 95% confidence interval per month per provider over two-month periods (July-August, September-October, and November-December) for each type of training content; 3) the total number of practice sessions per provider (for HMS and HBB combined, over the project duration) was calculated at the facility level, and the mean for all facilities; 4) the mean and 95% confidence interval of total practice sessions per provider stratifying by the following factors: a) higher (above the total mean) or lower documented practice; b) higher level of facility (hospital or health center IV) or lower level; c) study arms with a practice coordinator (study arm 2 and 3), or study arm 1.

8. What is the rationale of conducting a Focus group discussion? Which information do you seek? This applied to the key informant discussions too

Response: We have edited the methods section to provide more information about the rationale for FGDs and key informant interviews.

Discussion

Please discuss your findings in relation to available literature. Start by stating your finding/result, then explain why you see this result in relation to available literature.

Response: We agree that this is the standard format for a discussions section, but we were limited in this case by the fact that we identified so few other studies that reported on frequency of simulator-based practice or providers’ experiences with simulator-based practice.
Conclusion

This conclusion is not aligned to objectives or the results.

Response: The two objectives were to: a) to describe factors contributing to participation in LDHF practice, identified by birth attendants and managers and b) to explore differences among hospitals and health centers in factors that motivated or discouraged LDHF practice. We agree that the second objective was not addressed and have revised the conclusions accordingly.