Reviewer’s report

Title: Exploring the effect of implementation and context on a stepped wedge randomized-controlled trial of a vital sign triage device in routine maternity care in low-resource settings

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Reviewer: Mélanie Maia

Reviewer’s report:

I have read the paper with interest and I would like to suggest some work for improvement.

I feel it would be important to clarify on methodology how many domains are being analysed: 3 (Implementation, Reach and Adoption, as I can read on "Data collection", lines 47-48, page 9) or 6 (as you mention on "Outcomes", line 14-15, page 8)? Both differ from what is indicated in Table 1 and actually is presented in results (Context - Fidelity - Reach - Adoption - Action (potential)), creating some confusion in the reader.

Despite the Table 1, the complexity of this work asks for a conceptual framework to help visualize and clarify the process of analysis, undertaken measures and outcomes, and expected results.

The text need some more detail on the following issues:

_the randomization process (e.g. were "stepping" randomized") and on motivations as well;

_impact of time on effectiveness,

_the process dealing with the health workforce (HCP).

Regarding the last item, the CRADLE champions were random-selected individuals or teams? Were they asked to collaborate and participate in the intervention design (implementation design science). How was knowledge transferred from champions' training sessions to the other HCP?

3 final questions for discussion:

_You mention "only 4.8% of clinical areas were not using the CRADLE device" (page 11, last line). Were they using another one or none at all?

_In what way did the introduction of the device changed the local practices of registering and monitoring vital signs (e.g. BP)?

_What are your findings considering long-term follow-up after stepping taking place?
Thank you.

Yours sincerely,

Mélanie Maia

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An article whose findings are important to those with closely related research interests

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