Reviewer’s report

Title: Implementation Study of a 5-component Pediatric Early Warning System (PEWS) in an Emergency Department in British Columbia, Canada, to inform provincial scale up

Version: 0 Date: 22 Aug 2019

Reviewer: Kiyoumars Allahbakhshi

Reviewer's report:

Review: Implementation Study of a 5-component Pediatric Early Warning System (PEWS) in an Emergency Department in British Columbia, Canada, to inform provincial scale up (Manuscript Number: EMMD-D-19-00108)

Thank you for providing me with the opportunity to review the work. This manuscript makes a meaningful contribution to health research literature. It is original, relevant, in-depth, insightful, significant, and useful to the readers and practitioners. However, as a research paper, some areas need improvement. I hope my comments below are helpful as the researchers move forward with their study.

Keywords
1. Please separate keywords with a semicolon.
2. Collecting data
3. In collecting data, why did you consider the one year, before and after the intervention?
4. What was the reason for selecting people under 17 years old in this study?
5. How sample size was determined?
6. What exactly were online survey questions? There is not much talk about online surveys.
7. In semi-structured interviews, very general explanations are provided.
8. You stated the trustworthiness of the study very briefly.
9. What was the method of qualitative analysis?
10. Provide a brief explanation of the reason, with a reference, why qualitative studies are appropriate.
11. In what language were the interviews conducted?
12. How was the verbatim transcription? How was the interview recorded? For example tape recordings, video material, notes, etc.
13. Please note how the data in the qualitative section is saturated?
14. How was the sampling method for selecting participants?
15. Qualitative data collection only refers to interviews and online surveys. Did you also have an observation, field note, memo, and documentation review?
16. Did you have a repeated interview? If yes, for what reason?
17. In ethical considerations, there is no mention of the confidentiality of the participants and allowing them to leave the interview at any time.

Data analysis
17. Please take separate subheadings in qualitative and quantitative data analysis.
18. In this sentence "...Responses were reviewed, coded and categorized into commonly occurring themes by two separate researchers to enhance trustworthiness of the data..." further explanation is needed to help readers understand which of researchers did this?

Results
19. In Table 3, what is the sample size for men?
20. How did you reach saturation through semi-structured interviews with three key informants?
21. Please write the frequencies and percentages throughout the manuscript as follow: n=?, %.
22. In "Overall, majority of survey respondents were satisfied or very satisfied with PEWS scoring system (71.8% nurses, 81.8% physicians), PEWS flowsheet (56.2% nurses, 81.2% physicians), escalation guide (68.8% nurses, 81.8% physicians), and reference cards (75% nurses, 70% physicians). Satisfaction was relatively lower for situational awareness tools (41.2% nurses, 36.4% physicians) and the communication framework (54.5% nurses, 45.5% physicians)." Please clarify the reason for these results in the discussion.
23. Why are most quotes related to nurses?
24. Please include themes, sub-themes, and examples of code in a separate table?
25. Each sub-theme requires a short story based on the participants' experiences. Next, bring a quote.
26. In Table 8, please check the title.
27. In this study, were not clearly stated the unwanted effects of the intervention.

Discussion
28. Please clarify generalizability (external validity, applicability) of the findings.
29. Please check the lines 338 to 340. "However, we concluded that it is important that the tools and training strategy are tailored to the ED context to enhance implementation fidelity and satisfaction."
30. In line 418, please clarify who is "P"? "In all areas of practice, low practice volumes present challenges with maintenance of competency, thus guidance provided by P can assist with identification of serious illness (8)."

In general, the authors shared interesting scientific work on an important topic, but there is much explanation needed throughout. It is recommended the quantitative analysis of the manuscript be reviewed by another reviewer to improve the quality of it.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

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