Reviewer’s report

Title: Pre- and in-service training of health care workers on immunization data management in LMICs: A scoping review

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Reviewer: Brynne Gilmore

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Pre- and in-service training of health care workers on immunization data management in LMICs: A scoping review

Dear Authors,

Thank you for the opportunity to review this interesting study. I found your synthesis of findings really interesting and an important contribution to this field. I have some concerns regarding methodology and some inconsistencies within the reporting of methods and results, which I hope the below comments can help to address.

Abstract:

* Introduction - consider revising the first several sentence to make a more clear flow/link between HCW, immunisation competency, and training.

* Methods - include number of data bases searched. Include comment on how analysis was done.

Introduction

* Pg. 4 line 8 'most lack the necessary' - is this true, that most HCWs lack training. I know it is qualified with 'particularly in developing' after, but sentence still implies most worldwide. Additionally, the reference used is on an article in Quebec Canada.

* To this end, as the review is focusing on LMICs, consider adding an additional paragraph on the training and competencies of HCWs specifically in LMICs to build justification for your review's focus.
Big jumps are made in the information presented. In second paragraph, introduced concepts of competency and need for training, then jumps to EPI and then VPD. Consider first, more strongly introducing the topic of Immunization. And then adding 1-2 sentences on the specific competencies and trainings for this.

Methods:

* Study population: this heading is misleading as under here you also talk about interventions included. Change heading, or divide paragraph.

* Please provide operational definitions for your population - i.e. who is considered a HCP/HCW, what is pre and in-service training?

* Table 1 Label: Your study doesn't follow the PICO format, consider relabelling. Also, I wouldn't consider this a search strategy per se, but details on the search terms or concepts

* Table 1 and Table 2 - unclear how these fit together? Search terms are included in Table 2, but one would assume that you'd use all combinations of terms presented in Table 1 for the specific concept.

* How were the different searches (Table 2) combined? (i.e. AND, OR, between the concepts?) - unclear how this was used to identify the studies for screening

* Did all 3 authors do the screening? At second stage, how were discrepancies handled?

* Pg. 5 line 44 and throughout - introduced HCPs, but switch between HCW and HCPs. Please be consistent throughout

Results

* Diagram: Please thoroughly review diagram. Figures do not add up, labels might be off (i.e. is article with irrelevant title supposed to be 'duplicates'

  o N=2706, but if add up from each database, n=2705

  o 1582 after removing duplicates, with then 1124 with irrelevant title is 458, not 814.

  o Did you do irrelevant title screening, and then another title and abstract screening

* Unclear what 'intervention' in Figure 1. Article throughout says reporting on pre and in-service training, so unclear what 'intervention' studies would be
Pg. 9, line 49. What is meant by 'evidence mapping'

Pg. 9 line 53 - in both methods and results the authors talk about 'research questions' of the study, however these are never put forward. Please clearly state the questions this review seeks to answer

Pg. 9 line 55 - 'all 13 studies' but in the diagram there are 12 studies included.

Your studies listed include policy makers etc, are these considered part of your inclusion population, seeing as your population in methods is 'health care provider'?

Minor
- First sentence in Abstract, big leap between noting HCW and then uncertainty of skills on immunization handling data. Consider introducing additional line that notes HCW role of immunization interventions including data handling, before commenting on concerns and linking that to training.
- Pg. 4 line 5 - Sustainable Development Goals, usually capitalized I believe
- Developing, LMICs etc. Switches at times between two terms. ie. Pg. 4 line 12.
- Pg. 5 line 26 - "we conducted an exploratory research and systematically…" is awkward. Either remove 'an' or add 'project/activity etc' after research
- Pg. 12 line 15 - the reference [29] punctuation is off.
- Pg 13, line 2 - missing closed bracket after 'post-test' I believe.
- Pg. 14, line 27 - 'not relevant' consider revising to 'less relevant' or 'not responsive', as I am sure there is still some relevance of outdated resources?

Level of interest
Please indicate how interesting you found the manuscript:

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

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

Acceptable
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