Reviewer’s report

**Title:** Framework, principles and recommendations for utilising participatory methodologies in the co-creation and evaluation of public health interventions.

**Version:** 1  **Date:** 08 Oct 2018

**Reviewer:** Jane O'Hara

**Reviewer's report:**

Thank you for inviting me to review this revision of the manuscript. Unfortunately I do not feel that the authors have attended to my significant concern regarding the transparency - and thus robustness - of their methods to generate the findings, and my recommendation remains unchanged at this stage.

First, in responding to the review, the authors have failed to acknowledge one of my most significant concerns, that of the position of this paper as an empirical study, rather than a review paper. They have provided no response to this point at all. If, as this absence suggests, the authors feel justified that this stands as an empirical paper, the methods remain very thin in terms of content, and would certainly not support replicability, or allow proper interpretation of the findings generated.

To illustrate this, I would highlight a series of issues within the current justification of the methods:

i) The authors state:

"The development of these principles and recommendations followed an iterative reflection process, which utilised a combination of key learning highlighted in published literature along with critical reflection on three case studies conducted by experts in co-creating public health interventions using various participatory methodologies…"

Here, I have the following queries:

- What published literature?
- If this is building on from published literature, why is this not a review?
- How has the published literature been integrated with the case studies?
How were the case studies selected, and why were they selected? Why these and not others? It seems that these are cases that involve the authors, but this is not mentioned specifically and yet it would influence how the authors have arrived at the principles outlined.

ii) The authors state:

"The principles and recommendations described here emerged following multiple discussions of the material and iterative circulation and redrafting of this manuscript. This method has been used previously to develop principles in community participatory intervention implementation [34] and more detailed information regarding recursive learning cycles is available elsewhere [25]."

Here, I have the following queries:

- So, what did you do to derive the principles? Was this over email alone? How did you achieve consensus? How were disagreements resolved? Who was involved in these discussions? Further, if this is to highlight the absence of co-creation with end-users in PH interventions, were stakeholders part of the creation of these principles?

- How did you weight the published literature against the knowledge created from the case studies?

- I would disagree that the method the authors describe is that as published in the paper cited [34]. I have interrogated this paper, and the methods as described there are: "In preparation of this paper the authors critically reflected on the sequence of events that contributed to the project's evolution. Also, documents produced during the life course of the programme were studied. Finally, critical events were selected to illustrate the implementation process. The four principles presented here emerged from ongoing group discussions of this material. These principles were critically examined and labelled. Successive drafts of this paper were circulated and discussed among the various working groups within the project." I would suggest that this method is under-specified in itself, so simply saying you are replicating an already underspecified method does not make for replicable, 'good science'. Further, I would argue that the method as described in the cited paper, actually encompassed activity that is not apparent in the authors' current description of their revised paper. For example, they move beyond simple 'reflection', to documentary analysis, and using 'critical events' to illustrate the principles identified in the findings, something which is absent in the paper under review.
To conclude, despite this being a topic of interest to the wider scientific community, I remain unconvinced of the robustness of the methods used, and thus am unable to interrogate or interpret the findings accordingly. I would suggest to the authors, that whatever decision is made on this paper, they consider the above points fully, as I believe that they would, if combined in a future manuscript, improve the paper considerably.

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An article of importance in its field

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