Reviewer's report

Title: Acceptability, sustainability, reach, dose and fidelity of implementation of an educational intervention to improve hand washing in primary schools: process evaluation within a randomised controlled trial

Version: 1 Date: 25 February 2013

Reviewer: Claudia H Lau

Reviewer's report:

It is extremely important in public health research to take into account how well a intervention might function beyond the research trial, in the real world. I commend the authors for taking the initiative to evaluate the fidelity, acceptability, and sustainability of intervention using qualitative methods. However, also due to the goal of the manuscript, the manuscript will only be of interest to the readers of the journal if the intervention is disseminated alongside the manuscript as supplementary material. Please see below for further detailed comments:

Major Compulsory Revisions

1. As the point of the manuscript is to assess the fidelity, acceptability, and sustainability of the intervention, the manuscript will only be of interest to the readers of the journal if the actual lesson plans, posters, and stickers are disseminated alongside the manuscript as supplementary material.

2. The findings of this study do not warrant any claims about the effectiveness of the intervention, as it is only evaluating intervention design and dissemination. Authors should acknowledge this limitation while they discuss adaptations in the Discussion (second paragraph, 12th sentence), and should remove the claim from the Conclusions (1st sentence). The second sentence is also merely speculation, hence should also be moved from the Conclusion.

Minor Essential Revisions

3. Methods: Please include any honorarium given to pupils, teachers, staff, or the school for participating in the research study.

4. Methods, "Focus groups with pupils": Did all randomly-selected pupils end up in the focus group?

5. Results, throughout: For each of the findings, please name the data source (i.e., direct observation, pupils, teachers, staff, or log sheets) that the finding is interpreted from, and how often each finding is mentioned by participants.

6. Results, "Fidelity": Please include a brief description of how the intervention should be delivered so that readers have an idea of how far teachers have departed from the intended delivery.

Discretionary Revisions

7. Title: Consider removing first line of the title to simplify the title for the reader.
8. Methods: To improve clarity, consider mentioning at the very beginning of the methods that HPA and University staff delivered the intervention package to the school teachers, but it was ultimately the teachers who taught the intervention. Were the teachers trained by the HPA/University staff at all?

9. Discussion, second paragraph: Consider splitting this paragraph into two for better readability, e.g., after the 8th sentence "pictures of germs."

**Level of interest:** An article of limited interest

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.