Reviewer's report

Title: Improving the implementation of a hand hygiene intervention: Using psychological theory

Version: 2 Date: 5 December 2011

Reviewer: Judith Dyson

Reviewer's report:

Major Compulsory Revisions
None

Essential revisions
Page four, paragraph two, line four needs referencing. I am not sure if this is accurate. I am aware that multifaceted interventions are effective and costly – but in the UK at least large amounts of money have been recently invested and as such this is not an issue.

Page five paragraph two, line seven. The authors state that the application of the behaviour change framework has not been previously reported. This is not the case. Could the authors look further and consider the relevance of similar works. Two examples are cited below – the second relates to hand hygiene. There are other examples of where this theoretical framework has been used in relation to barriers and facilitators to practice.


Page 8 under the title skills. The authors state that there is some dissonance between nurses stating they have sufficient knowledge and that demonstrated when questioned about skills. The quote offered is “... it is always better to wash your hands than sanitizer right?...” The authors state that this is not a better method, it is recommended when hands visibly soiled. I cannot help thinking the nurse in question may have been somewhat right – as we know that gel is insufficient in the case of C. difficile – and other spore based pathogens. The quote used begs the question was the nurse simply inarticulate in stating this – in using the word “best” I would suggest the authors use a different quotation to demonstrate the knowledge gap. I think this is particularly important to change as a good chunk of the conclusion hangs on this.
Page 16, paragraph 2. With regard to staff knowing the level of performance/compliance necessary. I think this needs a little bit of development. HH audits are carried out in all UK hospitals at least minimum acceptable levels are in place. There is a large body of literature examining HH compliance. I think this comment is somewhat sweeping and needs to be better justified.

Page 17, paragraph one. The authors discuss identifying behaviour change techniques that target the specific determinants. The references supporting this do not seem related to the Michie et al. theoretical framework. I would suggest the authors look at the taxonomy work done by Abraham and Michie 2008, and the mapping work done by Michie et al. 2005 to enhance this paragraph.

Page 18, paragraph 4. The abbreviation KI is used without previous definition.

Discretionary revisions

Background. Is there any literature where similar systems have been used? If so it would enhance the paper if it was briefly summarised. If not the authors would do well to acknowledge this. The authors talk about their own work only. Are there similar systems, or systems used for other practices (not HH)? Are “talking cones” (traffic cones that sense movement outside of wards/rooms and suggest HH) relevant here?

**Level of interest:** An article of importance in its field

**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 I have no competing interests.