Reviewer's report

**Title:** Participatory eHealth Development to support Nurses in antimicrobial Stewardship

**Version:** 2  
**Date:** 23 December 2013

**Reviewer:** Charlene R Weir

**Reviewer's report:**

**Major Compulsory Revisions**

1. **Lack of Focus:** This study is an interesting exploration into the information needs of Nurses regarding antibiotic stewardship. There are several issues that I think are important to address regarding this paper. The most important of which is the problem of focus. The authors stated that identifying nurses’ current roles and tasks was one of their objectives (p. 5). However, the results and the analysis did not address this issue. Although the authors found discrepancies in the implicit beliefs about nurse’s responsibilities regarding stewardship, they did not follow up on this finding. It seems relatively impossible to provide information support for tasks where the responsibility for those tasks is not clear and the tasks themselves are not delineated. Addressing the high-level collaborative task structure might help to organize the whole paper. Without that clarification or at least, exploration, interpretation of the actual information needs is difficult. The paper should make clear up front what tasks related ABS are being addressed in this analysis. Reporting on the barriers in completing those tasks would, then, be easier to understand.

2. **Lack of Specificity in Methods:** The methods used are described in very vague terms. For example, in terms of the observations, the authors report that they were done “at various moments.” No information was provided as to how long, what kind of settings, how many times, etc. Or, when nurses were given the prototype and asked to do an information search, it wasn’t clear how many questions they were given and exactly what kind of information they were trying to find. Finally, in the prototype evaluation, they were asked to “give a first impression.” More specificity would be useful and certainly could be done in fewer words.

3. **Lack of Specificity in Results:** The results were also presented in a very non-specific manner. The usual framework for qualitative work taken from focus groups is thematic analysis. Themes are more than simply a list of items; they are cross-cutting issues broadly described and abstracted from the specific content. When reported, they are presented with a set of related quotes that reflect the category of quotes that used to create the themes. Hopefully, the themes are sufficiently broad that they DO provide some generalizable content. Another way that qualitative work is done is through direct coding which would require systematically coding structure, measurement of inter-rater reliability.
and reporting of results in the form of counts. However, neither of these methods was done. Rather, the results were reported using words, like “good” “many” “often” without any specific quantity.

For example, at the top of p. 14, the authors reported that “most” information types were used “frequently” and “repeatedly.” Or as noted in the next section on Problems with Information Search, the authors said that they found that “information was either not available or not user friendly” -- other phrases such as “many instances” and “they turn to a wide variety of information sources” is so vague that it becomes not useful. Even the results of the card sorting task was simply reported in terms of a short list, without reporting the actual “statistical fit” of the model which would have be part of the output from the software they were using. When talking about the prototype evaluation, results were presented as the participants had “no problems navigating” (p. 19) or that the nurses reported the overall look was “good” and the information “valued positively.” I am sure that they all did not say the same thing exactly. There are rating instruments that could be used, such as the System Usability Scale (SUS).

4. Discussion and Conclusions. The Discussion section consisted largely of a summary of why this kind of research is important and useful. It should focus much more tightly on the implications of this work on several key issues, including the role of nurses in ABS, how their findings contribute to the knowledge about the “gap” in systems supporting Nurses’ information needs and what actually constitutes an integrated display in this context. How does their work contribute to the science?

Minor Essential Revisions

1. p. 12 The authors repeat what is already in the table – no need to do that.
2. A good editing would be useful
3. The implementation process could have more discussion as it was interesting

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

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'