Reviewer's report

Title: Process evaluation of discharge planning implementation in healthcare using normalization process theory

Version: 2 Date: 30 September 2015

Reviewer: Craig Kuziemsky

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The literature review is a bit scattered as it starts talking about the introduction of new technology and micro/macro change, then discharge planning, and then development process of ICT for nurses. I see those as three very different problems, and neither one was adequately described in the lit review.

Specific issues with the literature review are as follows:
First, there is a wide body of literature on micro/macro change and ICT similar to the way you are describing the problem. I would look at the Technological frames literature of Wanda Orlikowski and the healthcare specific work on that topic by Laurie Novak.

Second, there has been a lot of work on discharge and other handover processes, particularly studies that have looked at the complexity of the process. Given that your title refers to process evaluation I think that you need to have some background on discharge processes in your literature review.

Third, I am not sure what you mean by ‘no study has been found that fully describes how the development process of ICT as a supportive tool for nurses’ daily work is performed.’? There is a substantial body of work on ICT design for nurses. Nancy Staggers, Suzanne Bakken and Sarah Collins are just a few people who have done excellent work in that area.

Methods

The description of the methods can be more rigorous. In the description of the document analysis was an actual method used such as qualitative content analysis? To just say document were read several times and then coded does not sound particularly scientific. Was coding inductive or deductive? How were codes developed, reconciled etc.

I’m also a bit confused about what you are calling the explorative study. You describe several data sources such as focus groups, interviews etc. but you provide no details on how those sources were collected? If they were collected for another purpose than how do you know they are suitable for the purpose of your study? Further, you also describe the research process for the explorative study as close reading of documents with some coding and discussion about codes across authors. As stated above, I do not consider that an acceptable level of methodological rigor for a scientific publication.

Results
I’ll admit I had a hard time following the results. For one, it’s not obvious what your analysis is trying to do. Early in the results it is very tool centric (pages 9-10) as you describe the IT background of participants. However, you then start mapping processes and adverse events. Then on you start discussing listed requirements but it is not obvious what you are referring to?

Page 12 – I am not sure what the purpose of the survey was or what information it gathered?

Page 12 – what does it mean that interviews were used to understand a today perspective?

Page 12 – The interview data is all over the place with respect to themes. Interview on describes a result as ‘The result showed that RNs experienced that society was not in step with healthcare, which inhibited the DPP.’ Not sure what that means exactly or how it relates to DPP?

Page 13 – you need to provide far more details on the six issues that were identified – how did the data sources inform the requirements? You need to provide far more insight on specific processes or issues that were identified from the data before you can jump to the list of requirements.

Page 14 – what does acceptance testing mean? Was it usability testing? How were test cases developed? Having one person do testing does not seem very rigorous.

‘The new supportive tools required minor changes in the existing description of routine operations concerning the DPP’ – what is the extent of these changes?

The overall challenge I had with this paper is it never provides sufficient detail to allow the reader to understand what was done. On page 15 onwards the authors start describing all these issues such as pressure from physicians, lack of face to face meetings etc. But that is the first time these issues have been mentioned?

While I can see the value of the NPT, it appears as the authors had data on the supportive tools and then simply used the NPT to categorize the data rather than doing a rigorous study. The lack of details that are provided makes the findings as written in no way generalizable to other settings.

Major Compulsory Reviews

The authors need to provide far more details on the study and the methods used. In the introduction they need to do a better job of defining their research purpose and then provide adequate literature to support the purpose.

The results need substantial revisions. They are very difficult to follow and it is not apparent why things are highlighted or where certain themes come from.

**Level of interest:** An article whose findings are important to those with closely related research interests

**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