Reviewer's report

Title: Computerized Clinical Decision Support and Knowledge Management in Community Settings: A Qualitative Study

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Reviewer: Andrew Georgiou

Reviewer's report:

The paper identifies a number of important themes from the implementation of a clinical decision support (CDS) system in ambulatory clinics and community hospitals. The authors of the paper show that the impact of CDS has not been extensively researched.

Major compulsory revisions:

1. I would have liked the Introduction to have considered a broader international field of literature in this area beyond the US. It would be useful for instance to consider developments in Asia and Europe as a means of broadening the generalisability and impact of this research.

2. The Introduction could have also been strengthened by some explanation about the specific challenges that confront community/ambulatory settings. This could help provide some important context to the reader to help appreciate the significance and relevance of the findings.

3. The employment of a systems-based theoretical framework is important particularly given the authors’ description of the fragmented state of our understanding and knowledge in this area. However, I am concerned about the lack of information and discussion about the framework. I believe the paper needs some more description as a means of helping the reader appreciate the framework’s value and purpose. This will also help the reader to evaluate whether the findings meet the expectations of the framework.

4. The paper presents a solid methodological approach drawing on the team’s previous work in hospital settings. Despite this I am left a little puzzled about how the ten themes described in the Findings were arrived at. Did they emerge from the framework? If not, how are they linked to the framework? Please provide some explanation about how the study/research proceeded and developed.

5. There are a couple of times in the Findings section (see Theme 8, page 14 and Theme 9, page 15 and page 16) where citations to previous work appear. My concern about this is that it tends to blur findings from previous studies and those from the present. It would be clearer to leave the comparison with prior studies to the Discussion section of the paper.

6. The Discussion section of the paper provides a list of actionable recommendations but does not link these to the findings. This makes it hard to understand how the authors arrived at these recommendations and how they
relate to the findings of this study.

7. The statement in the first paragraph of the Discussion says that “this research validates and strengthens previous work”. Which previous work? How does it do this? Taken together with the related points (outlined in point 6 and 7 above), this statement leads to concern about what this study actually achieved beyond the other studies.

8. The paper also needs to discuss its findings relative to the theoretical framework that it employed. In doing so the authors need to reflect on the strength, robustness, validity and usefulness of their framework. Did the findings of this study cause them to extend their framework, abandon any portions of it, or perhaps even modify it in the context of some of the unique characteristics of community/ambulatory settings?

Minor essential revisions:
1. The Methods section (page 5) talks about “… members of the Clinical Decision Support Consortium” being pre-selected for excellence. Could the authors elaborate on this statement?

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 that I have no competing interests'