Reviewer's report

Title: Virtual Patients to Explore and Develop Clinical Case Summary Statement Skills amongst Japanese Resident Physicians: A Mixed Methods Study

Version: 2 Date: 26 August 2015

Reviewer: Stephen Loftus

Reviewer's report:

1. Major Compulsory Revisions

There are a number of different theoretical approaches to understanding and studying clinical reasoning. The authors seem to have adopted the dominant paradigm based on cognitive psychology. This is perfectly acceptable but there seems to be no acknowledgment or awareness of other approaches to the study of clinical reasoning. This is a little surprising as the authors frequently mention narrative. Narrative Medicine has its own body of literature which is based within a more interpretive paradigm and can also be used as a basis to study clinical reasoning. The paper would be strengthened if there was at least some acknowledgment that there are other approaches to the study of clinical reasoning.

2. Minor Essential Revisions

The standard of writing is generally very good but there are some very awkward statements and expressions that need clarification. For example, what exactly is “an organically occurring response”? (p.3). On line 86 of the same page there is the term “attending-driven feedback”. Many people outside North America may not understand this expression. There is also mention of a “non-study setting” (p. 5 line 141). Presumably the authors mean a purely clinical setting as opposed to an academic setting? There are a number of sentences that are rather long and need re-reading to understand. It might be better if such sentences were made into a number of shorter sentences. For example, the sentence, “Although both report similar content from the case of altered mental status, the second, semantically driven, extraction contains increased transformation of information into meaningful abstractions … ” (p. 9 line 230). After several attempts I am still not sure what this statement is trying to say. Other examples include the statement, “These findings are important because narrative summarization is a hallmark of Western clinical training, intrinsically accepted as narratives naturally connect information throughout everyday life [24], and valued in CR for problem representation and key feature organization that enhance knowledge encapsulation” (p. 10 line 257). There is also an assumption here that Western style narrative summations are a gold standard that everyone should be striving towards. This assumption might need a little justification.

3. Discretionary Revisions
On page 6 (line 167) there is mention of a scoring rubric. Is it possible for this to be included? It could help clarify what was done.

The authors claim to be using a mixed methods approach. The qualitative aspect is restricted to a straightforward thematic analysis. This is probably appropriate in this project where very short pieces of text are generated for analysis. However, if the authors want to expand their research in the future, beyond a pilot study, then they would be well advised to strengthen the qualitative aspect with a well-recognized qualitative approach based on something like Narrative Medicine or Grounded Theory among others. For future studies they might consider interviewing the residents and asking them how they made sense of the Virtual Patients as well as asking the residents to explain how they used the Virtual Patients to develop their clinical reasoning and its articulation. Such interviews could also bring to light any other factors that could be helping residents to improve. The authors are honest enough to admit in the Limitations section that other influences might have played a role and a more robust qualitative approach could elucidate this in future studies.

**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:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests.