Reviewer’s report

Title: Comparative value of a simulation by gaming and a traditional teaching method to improve clinical reasoning skills necessary to detect patient deterioration: a randomized study in nursing students.

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Reviewer: Carina Georg

Reviewer's report:

Dear Authors,

the manuscript compares the respective value of simulation using serious game with debriefing and traditional teaching method to improve clinical reasoning skills necessary to detect patient deterioration. It is an interesting manuscript about an important topic that needs to be explored. In the age of technology, series games are becoming a frequent used educational modality in nursing education. However, I think the manuscript have some missed points which makes it difficult to interpret the result.

- There is no clear definition of serious game. In line 339 you state that the definition is sometime ambiguous, but you don't define the term. Also missing a description of game characteristics.

- The term Clinical Reasoning is not defined in this study. The term Clinical Reasoning is applied to diverse approaches in different context and in nursing/medicine. In the article you describe that the primary outcome was student´s clinical reasoning skills regarding detection of clinical deterioration measured by script concordance test, and that the secondary outcome was students self assessment of various steps of clinical reasoning. You state that you explore all different steps of clinical reasoning, but missing to describe the different steps/aspects of clinical reasoning. Without a clear definition, is it difficult to interpret the result and follow the discussion.

- Objective of this study was to compare the respective value of simulation using serious game with debriefing and a traditional teaching method to improve the clinical reasoning skills necessary to detect patient deterioration. The result shows no significantly difference between the groups regarding SCTs results and self-assessment. The SG group expressed however more satisfaction toward the training session. Given the result, is it difficult to understand the relevance for some parts of the discussion.
- Sometime the literature not relevant cited. For instance line: 86 and 89.

After some clarification I believe this article will be an excellent addition to the journal.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

No

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

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