Reviewer’s report

Title: Simulation training in vitreoretinal surgery: A systematic review

Version: 1 Date: 17 Feb 2019

Reviewer: S. Swaroop Vedula

Reviewer's report:

The authors have attempted to address previous comments, but I think there are a few major gaps in this work that preclude me from recommending acceptance of this manuscript.

1. I do not understand what provides the methodological basis to use MERSQI to assess risk of bias in studies included in systematic reviews, and to use a score as an index of "quality". I suggest omitting it unless there is clear methodological evidence for using the scale and calculating a score. In my opinion, using MERSQI to assess studies in systematic reviews and using a score on the scale is taking us about a decade back in time in terms of what we have learnt about how to do systematic reviews. I'm unable to recommend acceptance of this work for publication, which would indicate endorsing the use of scoring methodology. Stating that MERSQI scoring is insecure in the limitations is not sufficient. I don't see what "insecure" means in this context. The argument about scoring is not unique to MERSQI. There is a ton of literature on why scoring quality scales is not a meaningful exercise for studies included in a systematic review.

2. I don't understand how the risk of bias was assessed to provide constructive comment. The explanation about assessment of selection bias is unclear. What is "progress of dividing the participants into their respective group"?

3. The aim/objective of the review is still unclear. What is "level of validation"? How is it defined? What "levels of validation" currently exist? Similarly, "state of evidence" is a vague phrase. What does it really mean? A clear objective will help.

4. I don't understand why selection bias could not be evaluated for a single group study (Yeh, et. al.). For example, was it a sequential sample or convenience sample? Were inclusion/exclusion criteria pre-specified? Do we have information on those who agreed to participate versus those who did not?
5. My final comment is up to the Editor, but I would like to see a synthesis of the studies instead of individual summaries. It will explain what can we learn across the studies instead of what we've learnt from each study.

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

No

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

Unable to assess

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

Unable to assess

**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 am able to assess the statistics

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

Acceptable

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