Reviewer’s report

Title: Health professions digital education on clinical practice guidelines: a systematic review by Digital Health Education collaboration

Version: 2 Date: 08 May 2019

Reviewer: Mark Newman

Reviewer’s report:

Thankyou for revising the manuscript which has several useful clarifications. I think the addition of the GRADE quality assessment is useful although I wonder whether the authors may wish to check the consistency of all their claims throughout the text with their assessment of the all the evidence as "low to moderate ".For example on page15 there is the statement

"With regards to knowledge, digital education was more effective than no education. Studies comparing the effect of digital education with traditional learning on knowledge showed a small, statistically non-insignificant difference in favour of digital education."

The second appears sentence appears to more accurately reflect the data (and quality) than the first

In results section the authors write

"Digital education (more interactive) vs digital education (less interactive)

Five studies compared different configurations of digital education interventions (Table 1) [16,32, 33, 39, 40]. Four studies evaluated online modules with performance-based or knowledge based feedback [16, 32, 33, 40] and one study evaluated email-delivered, spaced education game [39]. The control interventions were either less interactive form of the digital education or noninteractive, online resources. Four studies measured behaviour and largely reported no difference between the groups (Figure 4, Table 1) [16, 32, 33, 39]. Of three studies measuring knowledge [16, 39, 40], only one study on spaced education game favoured intervention (SMD = 0.81, 95%CI: 0.43-1.20, moderate quality of evidence) [39]"

In discussion section there is this this discussion about these results

"The literature showed that interactive traditional learning was more effective than passive guideline dissemination. In our review, most interventions enabled passive dissemination of resources with no or low interactivity and learner engagement, e.g. using power-point presentations or computer-based text [31, 34, 36, 37, 41]. Some interventions had low interactivity but aimed for higher learner engagement using performance feedback and online, group discussion [16, 33, 45, 46]. Finally, four studies evaluated interventions with higher interactivity and engagement such as spaced, email-delivered questionnaires, online training, online simulation and games [30, 38, 39, 42]. Overall, these studies reported larger improvement
in the reported outcomes in the intervention groups in comparison to studies with more passive interventions."

This discussion does not seem to match the results as presented in the results section to me and more clarity would be useful about why there appears to be a difference.

With regard to the Supplementary information 3 Forest plot the authors should still tell us whether these outcomes from the same study (despite being different outcomes) are outcomes for the same subjects.

I think it would be useful if the authors also highlight the need for better quality research (and/or reporting)(and what exactly this would look like) rather than only the topic areas and also to highlight the need for research on the cost effectiveness of these interventions.

**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.

Not applicable

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