THE UNIVERSITY of EDINBURGH

Exploring the effectiveness of virtual reality simulation

Why didn't it work?

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Intro

Medical simulation is costly and time consuming (Pal et al., 2021). Advances in technologies have produced a variety of purpose-build healthcare simulation software to try and overcome this. We wanted to evaluate whether VR simulation is effective in giving students the experience of assessing an unwell patient.

Method

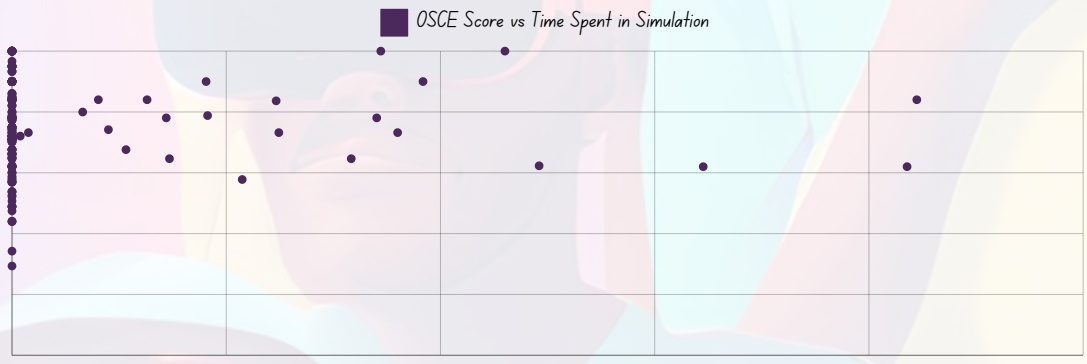
Year 4 medical students had a 1-year subscription to VR simulation software.

Students completed a questionnaire in year 4 and a follow up questionnaire in year 5.

We collected usage data from the software and student marks in their unwell patient OSCE.

Results

No correlation was found between usage and OSCE results.



- students didn't like that they weren't able to perform physical examination
- The patient interaction wasn't realistic.
- They had technical difficulties when using the software
- They didn't find it convenient or easy to access
- They had other preferred methods of practice.

Conclusion

The software didn't have enough appeal to get students to use it. Not enough use makes it hard to draw any substantial conclusion on its efficacy.

The feedback suggests that functionality and accessibility of the software is the greatest reason for lack of engagement.

To be used, simulation software must provide a realistic experience, be easily accessible and instinctive to use.

Pal, S., Benson, R., Duvall, P., Taylor-Jones, V. (2021) 'Do innovative immersive virtual reality simulation videos have a role to play in teaching non-technical skills and increasing preparedness for clinical placements for medical students?', MedEdPublish, [version 2]. 9(1). 164. Availible at doi.org/10.15694/mep.2020.000164.2