

Immersive education: evaluating virtual reality in clinical decision-making

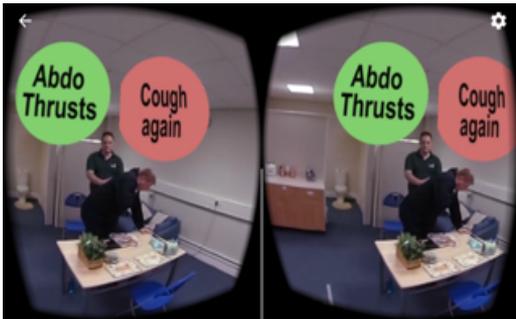
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Purpose

Using an acute choking scenario, this study evaluated:- 1) undergraduate paramedic students experience of using virtual reality (VR) and 2) whether they found it useful in enhancing clinical decision-making

Context

Experiential learning in VR offers students a way of learning that is active, participatory and unique. This project adds gamification to a 360-degree film in which the player works through an experience and the decisions they make inform the outcomes.



Methods

A 360 degree video was filmed in a simulated community residence. The experience comprised of a choking scenario in which participants made clinical decisions based on cues within the video. This video was shown to the students through a smartphone and VR immersive headset, after which the students (n = 29) completed a qualitative semi-structured questionnaire.

Results

- Only 5 students had previous experience of VR
- 8 students noted that they felt self-conscious in the headsets
- 28 students found this to be an engaging experience
- 26 students felt that the scenario resembles a real-decision making experience
- 26 students found that the experience enhanced their situational awareness

“the 360° experience was a great way to explore a scene in the classroom”

“makes you able to make clinical decisions in real situations”



Limitations

- Headset quality – uncomfortable
- Video image quality
- Audio quality
- Not all students had the option to engage (older phone models)

Implications

The use of VR within healthcare education enables students to engage in a practical way. The immersive nature develops clinical decision-making skills and situational awareness, allowing exploration of clinical situations without patient risk. VR technology has numerous potential applications for the education of emergency care personnel.