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Enhancement of Students' Interest in Clinical Skills Learning by Innovative Methodology

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Background & Objectives

Acquisition of fundamental nursing skills requires safe and effective clinical practice. Literature shows intense learning process may increase students' tension and undermine learning mood. The School's immersive virtual reality simulation (IVRS) project for fundamental nursing skills learning began in June 2021. The School VR team collaborated with an external agent, developing 12 sets of fundamental skills for IVR simulation based on first-year undergraduate nursing program syllabus. The simulation prototypes underwent 3D design including visual fidelity, audio embedment, locomotion and navigation layout and various functions. It provides students' real-time virtual experience interactivity. This study aimed to explore students' interest in clinical skills learning by this innovative method through analysis of focus group findings of the project (Wong et al., 2024).

Methodology

In the original study, 65 students were recruited through convenience sampling from a cohort 565 first-year nursing students of an undergraduate nursing programme. The students chose one of two IVRS skills (oxygen theory or nasogastric tube feeding) for experimental interventions. After filling the post-intervention questionnaires, twelve students were invited for two follow-up focus group interviews. To explore students' learning interest, we particularly employed thematic analysis method to analyse students' narrative expression of focus group interview for this study.

Findings

Students' narrative feedback from focus group interviews supported the IVRS methodology could be able to enhance their interest in learning fundamental nursing skills. Students expressed this innovative methodology facilitated their cognitive memorization of tedious skills steps and that could alleviate their tension in skills learning to a certain extent. Two themes related exploring students' interest generated from the qualitative analysis of focus group findings, they were: 1) Freedom of learning and 2) Facilitating guided learning.

Freedom of Learning

Students appreciated the flexibility and autonomy in their learning process through IVRS technology

Facilitating Guided Learning

IVRS facilitated cognitive memorization of tedious skills steps and alleviated tension in skills learning

Implications

The focus group findings demonstrated students' appreciation for using innovative methodology (immersive virtual reality simulation) in clinical skills learning. This approach could arouse students' learning interest by providing learning freedom and facilitating cognitive memorization of complex skills steps by guided learning.

Educators may consider adopting IVRS modality to enhance learning quality in clinical nursing skills acquisition.



Keywords

learning interest, education technology, clinical skills learning, immersive virtual reality simulation, guided learning

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