## **ABSTRACT**

## Knowledge and Attitude of Nursing and Medical Students Towards the Use of AR/VR as an Approach for Tabletop Exercise

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## **Abstract**

**Introduction and Objective:** Augmented reality/virtual reality (AR/VR) has been recognised as a great technology to be used in many fields, especially in emergency and disaster management. This technology also can be applied in one of the disaster exercises which is a tabletop exercise (TTX). TTX is where a group, discusses a simulation of an emergency led by a facilitator. This study aimed to determine the level of knowledge and attitude of nursing and medical students and its association with sociodemographic data towards the use of AR/VR as an approach to TTX in emergency and disaster preparedness.

**Methods:** A quantitative cross-sectional study with convenience sampling study was conducted among 211 IIUM Kuantan Campus nursing and medical students from April to June 2022. Data were collected using questionnaires through Google form which is available in English language. The questionnaire for student's knowledge and attitude on AR/VR was self-developed and a reliability test was conducted with reliability of 0.72 and 0.865 for knowledge and attitude respectively.

**Results:** Majority of respondents have high knowledge and displayed positive attitudes towards the use of AR/VR as an approach to TTX in emergency and disaster preparedness. It was found that frequency of playing on a computer, or mobile games is statistically significant with attitudes on the use of AR/VR. While no significant difference was identified between gender, ownership of computer/mobile devices and period of daily of internet use with attitudes towards the use of AR/VR.

**Conclusion:** The use of AR/VR in the field of emergency and disaster can be very useful. It is hope that this advance technology can be implemented by the National Disaster Management Agency as well as in the field of healthcare education to have a community that is well prepared with emergency and disaster situation.

Keywords: augmented reality, virtual reality, tabletop exercise, students, knowledge, attitude

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