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Immersive Virtual Reality Simulation for Undergraduate Nursing

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Poster presented at the 2022 Spotlight on Scholarship at the University of Nebraska Medical Center, Omaha, Nebraska.

Abstract

Innovative methods of delivering health professions education are vital to the continued growth of programs and student success. Changes in the clinical environment, including the availability of clinical placement and increased need related to the COVID-19 pandemic, accelerated the need for new modalities in course delivery. Prior to the onset of the pandemic, the college of nursing initiated a program using virtual reality headsets to provide a new form of simulation for students. This presentation will describe the development of a comprehensive plan of Immersive Virtual Reality (IVR) patient scenarios specific to the training for undergraduate nursing students. Funding from the College of Nursing and grants from CS-CASH, IAE, and the Faculty Scholar's Grant from the American Academy of Colleges of Nursing provided funding for the projects to develop the IVR program. Faculty worked with UNL Computer Science and Engineering Senior Design students and an outside vendor, SimXAR, for the development of simulation scenarios. Development, implementation, findings, and recommendations will be presented for those interested in developing an IVR simulation program. Important aspects of educating faculty and orienting students to this type of simulation will also be described. Program development began in 2019, and the first groups of students were introduced to IVR in Spring 2021. Data was collected using the Simulation Effectiveness Tool, Technology Acceptance Model, and the Engagement Tool. The objectives for this presentation are: 1. Describe the development of an IVR program; 2. Discuss the collaborations, resources, and training needed to successfully develop and implement an IVR program; and 3. Identify the outcomes of the Immersive Virtual Reality Simulation in an undergraduate nursing program.

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