Measure (ITEM) [2]. ITEM was formulated on a learning theory called Model for Immersive Technology in Healthcare Education (MITHE), which borrows cognitive and behavioural theories to help explain our level of immersion and enjoyment that can be facilitated by technology (see Figure 1-A9).
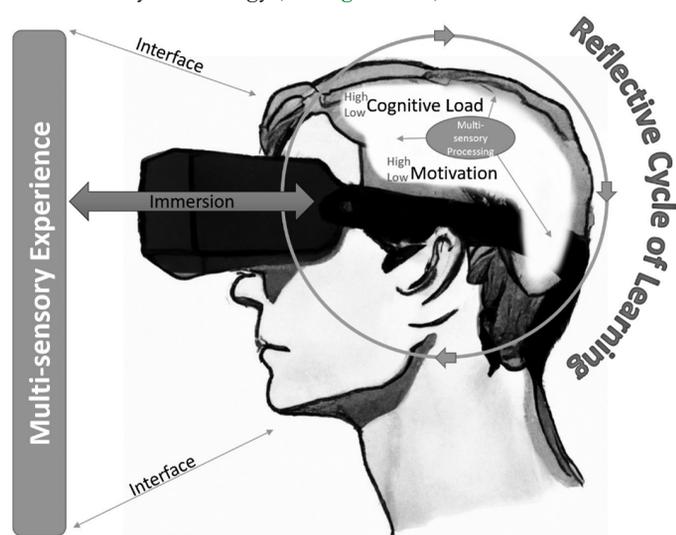

Figure 1-A9: Model of immersive technology in healthcare education (MITHE)

Methods: This single-study quasi-experimental investigation was conducted at a single site. Nine participants were recruited, consisting of medical students and healthcare professionals. Participants were trained on varied immersive devices: sepsis management using an immersive VR simulation developed by Gogglemind, and augmented reality (AR) holographic patient with respiratory distress, which included realistic patient scenarios and interactive decision-making. User experience was measured using the ITEM, which assesses user; immersion, cognitive load, intrinsic motivation, debrief and technology usability.

Results: Nine participants had high levels of immersion (mean 39.6, total 50), high levels of intrinsic motivation (mean 39.6, total 50), high technology score (mean 79.4, total 100), optimum cognitive load (average 59.5, optimum 39–61) and moderate score on debrief (mean 18.1, total 25). ITEM subscores indicated an enjoyable and immersive experience with good technology interface on usability scores. Self-directed debrief in VR had lower scores with emotional considerations and identifying domains of performance and learning.

Conclusion: The use of the ITEM provided valuable insights into the user experience of the VR simulation, which can be used to improve the design and implementation of future simulations. This contributes to an ongoing ITEM validation process. This study highlights the importance of training in healthcare and the potential benefits of using immersive technologies such as VR and AR simulations.

Ethics statement: Authors confirm that all relevant ethical standards for research conduct and dissemination have been met. The submitting author confirms that relevant ethical approval was granted, if applicable.

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TECHNOLOGY

A10

PILOT STUDY LOOKING AT THE BENEFITS OF VIRTUAL REALITY (VR) SIMULATION FOR PHYSICIAN ASSOCIATES (PA)

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Background and aim: Simulation is a vital part of medical education [1]. It requires many resources to run successfully [2]. Recently, following the COVID-19 pandemic, Virtual Reality (VR) simulation use has increased. There are advantages to using VR now that costs are more reasonable, saving floorspace and facilitators' time. However, there are concerns about how useful the software is for Physician Associates (PA), the adverse effects of the headset and whether self-directed debriefing is valuable [3]. This study aims to pilot the questionnaire using VR simulation.

Methods: As part of teaching during September 2022 and January 2023, VR simulation was incorporated into appropriate seminars. At the end of the session, Year 1 PA students were invited to complete an online questionnaire based on the Simulation Effectiveness Tool, which was modified for VR. Before the session, all students were on-boarded to use the Oculus Quest 2 and Oxford Medical Simulation software.

Results: Twenty-one out of 25 students completed the questionnaire. 71.4% strongly agreed that VR simulation helped prepare them to respond to a change in the patient's condition and felt empowered to make clinical decisions. 85.7% felt more confident in providing interventions that foster patient safety. 66.7% felt more confident using evidence-based practice to provide care. When focusing on the self-directed debriefing, 66.7% strongly agreed that it contributed to their learning, and 71.4% strongly agreed that it provided opportunities for self-reflection on their performance. Concerning the headset and software use, 28.6% found it was not easy to log into the headset, but 65% found it easy to load the scenario. 57.1% were confident in navigating the virtual environment. This was after a briefing stage to orientate students to the environment. 70.6% felt safe in the virtual world, and 11.1% felt nauseous while in the scenario. The scenarios were also run via a desktop computer. 85.7% found it easier to navigate the virtual world, with 81% strongly agreeing that they felt immersed in the environment. Surprisingly, 52% of students preferred the desktop version, while 14% favoured it via the Oculus.

Conclusion: VR simulation is an impactful method of providing simulation-based medical education without needing a simulation suite or facilitators. Interestingly, the desktop version can provide an experience that students prefer, but this requires further investigation.

Ethics statement: Authors confirm that all relevant ethical standards for research conduct and dissemination have been met. The submitting author confirms that relevant ethical approval was granted, if applicable.

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TECHNOLOGY

A11 AN EVALUATION OF STUDENT VIEWS ON THE USE OF VIRTUAL SIMULATION IN UNDERGRADUATE PHARMACY EDUCATION

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10.54531/MNGO4706

Background and aim: In part due motivated by a lack of in-person placement opportunities for undergraduate pharmacy students during the COVID-19 pandemic, a UK university teaching team developed a programme of virtual simulated placement-style events to support undergraduate pharmacy students in developing skills and experience to support them in engaging with their foundation training. These experiences were developed at a time of significant change for undergraduate pharmacy training, as all new pharmacists being annotated as independent prescribers at the point of registration from 2026 onwards [1]. It has been reported that in medical students, the use of virtual patient simulation could improve clinical reasoning skills [2] but evidence of student views on the acceptability and implementation of virtual simulation in the target audience is limited and frequently not reflective of the style of self-directed simulation being utilized. This work aimed to evaluate final-year undergraduate pharmacy student views of the impact of the introduction of a programme of student-led virtual simulation on their education.

Methods: In academic years 2020–2021 and 2021–2022, an electronic questionnaire was distributed to final-year students who had recently been introduced to and given access to a range of student-led virtual placement experiences in academic years. Prior to administering questionnaires to students, the study was approved by the relevant school research ethics committee. Questionnaires were formed of a mixture of qualitative and quantitative questions, and asked students about their experiences of engagement with virtual simulation and views on the potential applications of virtual simulation in the curriculum. Quantitative data were analysed by simple descriptive statistics, and a critical review of free-text responses was performed through grounded theory to identify emergent key themes.

Results: A total of 43 student questionnaires were collected, with 18 responses (41.9%) being received in the academic year 2020–2021 and 25 responses (58.1%) received in the academic year 2022. 88.4% of respondents agreed that the introduction of virtual simulation would enhance their educational experience. Four key themes emerged from qualitative data analysis: individuality and autonomy, convenience, immediacy, and control. Students most commonly believed that the second year of the 4-year Master of Pharmacy programme is the optimal time for the introduction of placement-style virtually simulated experiences.

Conclusion: Final-year undergraduate pharmacy students believed that the introduction of a programme of student-led virtual simulation would enhance their educational experience. Students were found to value the convenience, control and autonomy of the introduction of student-led virtual simulation.

Ethics statement: Authors confirm that all relevant ethical standards for research conduct and dissemination have been met. The submitting author confirms that relevant ethical approval was granted, if applicable.

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DESIGN

A12 DEVELOPMENT OF A SUMMATIVE ASSESSMENT METHOD FOR INTERPROFESSIONAL SIMULATION AND OTHER INTERPROFESSIONAL EDUCATION (IPE) ACTIVITIES

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10.54531/MLVT9074

Background and aim: Collaborative learning is recognized as essential in ensuring the delivery of safe and effective healthcare. It is fundamental to creating the healthcare teams of the future [1,3]. Central to this, is the early exposure of healthcare students to multiple, healthcare professions to begin the process of thinking and practising in a more interprofessional way. Importantly, how the interprofessional experience is assessed is crucial to the success of collaborative learning. This was the background to the development of an interprofessional module within the School of Nursing & Midwifery at Queens' University Belfast.

Aims: (1) To collaborate on the development of additional IPE workshops to supplement an established interprofessional simulation model. (2) To develop an assessment component for the interprofessional activities, including interprofessional simulation. (3) To evaluate the process.

Methods: Drawing upon the expertise associated with the implementation of a highly successful interprofessional simulation programme, an interprofessional education (IPE) group was established with representation across the Faculty. From the outset, there was a need to have a shared understanding of the module and its complexities, and to work together to collectively support the pedagogy, shaping student learning and assessment, and providing the best educational experience [2]. The team collaborated on sourcing and establishing IPE workshops, developing reflective questions, as well as working on designing and integrating an online video within a digital platform, and streaming all students to one interprofessional workshop. An evaluation questionnaire was created using Microsoft Forms. The 17-item questionnaire incorporated three Likert scales, plus two either/or answers