

questioned [3], but the current four-year programme has been successfully maintained since the 2016–2017 academic year. Student cohorts range from 59–164 and participate in two simulation sessions per year. Logistical challenges, in addition to significant cost and time resources, have included retention of SPs to present consistent characters over years, integration of curricula revisions, and continuous updating of an extensive longitudinal simulation handbook. We aimed to explore students' attitudes towards MPharm communication and professionalism training and to understand how its elements impact on student perceptions.

Methods: In 2020, shortly before the coronavirus 2019 pandemic, 3 focus groups and one in-depth interview were conducted with undergraduate students from each year of the MPharm programme. A framework analysis method is being used to identify main and sub-themes from the data.

Results: Preliminary thematic analysis findings indicate a student focus on fear of exposure, recognition of professional values, confidence building in the application of knowledge, and the importance of integration of teaching and placement activity.

Conclusion: There is limited research in the use of SPs in undergraduate Pharmacy education with regards to how it helps them to develop in the domain of communication skills and professionalism and we hope our study will contribute to filling this gap.

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OPINION OF NURSING STUDENTS AND LECTURERS ABOUT VISUALLY ENHANCED MENTAL SIMULATION: PRELIMINARY RESULTS OF A QUALITATIVE STUDY

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10.54531/UBZP5127

Background: Simulation followed by debriefing has been acknowledged as a fundamental training approach in healthcare education as it can provide safe experiential learning opportunities. Although many institutions adopt full-scale simulation (FSS), it is very costly (e.g. specialised training facilities, simulators, ...). Facilitated mental simulation which is supported by simple visual representations to involve several learners together can be used for cognitive skills rehearsal face-to-face or remotely via an online video conferencing platform. We call this approach Visual-Enhanced Mental Simulation (VEMS) [1].

This study aims to explore the perspectives of nursing students and lecturers concerning VEMS as a simulation modality.

Methods: This IRB-approved study (aHSK/PGR/UH/03692) used a mix method approach targeting 150 adult nursing students exposed on at least one occasion to either or both FSS and VEMS followed by debriefing and all healthcare

lecturers from a UK-based higher education institution. For further exploration of students and lecturers' perspectives about VEMS and its effectiveness, they were invited to take part in a telephone interview. The lecturers were from nursing, midwifery, and physiotherapy. All of them received a VEMS guide to get a better idea of what it is and so they could think about its application in their programme. Participating students had previous exposure to VEMS.

Preliminary Result: Qualitative data of the study were analysed using thematic analysis with NVivo 12. 10 students and 10 healthcare lecturers agreed to participate in a telephone interview. Both students and lecturers positively perceived VEMS. As the facilitation method of VEMS is very similar to full-scale simulation [1,2], students indicated that they were able to practise their non-technical skills. The identified downside of VEMS is that students find it difficult to communicate with a poster while the facilitator vocalises the patient's voice. Nevertheless, students agreed that this method was helpful to practise decision-making skills and should be more integrated into the curriculum. Lecturers found it was a cost-effective and easy to set up classroom-based activity which could be used as a learning activity. They also found various ways of remotely facilitating VEMS to overcome the challenges of delivering training while maintaining learners' physical distancing.

Conclusion: VEMS provides lecturers and nursing students a cost-effective low-technology and a practice-based activity [3]. Followed by debriefing, it can be used in a nursing curriculum to mentally practise nursing skills in a safe and engaging environment. Obtaining feedback from lecturers from other disciplines can promote its use in different settings.

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IMMERSIVE SURGICAL SKILLS: TRAINING AND PREPARATION IN A SURGICAL ENVIRONMENT

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10.54531/WVRT1877

Background: COVID-19 has reduced training opportunities for surgical trainees, foundation doctors, and medical students [1]. With elective surgery cancelled, millions of patients on waiting lists, strict requirements on physical distancing, and trainees looking to meet numbers for competencies, it is difficult to achieve the necessary exposure and experience required as per the GMC's 'Outcome for Graduates', the Royal College of Surgeons of England, and the UK medical undergraduate curricula [2,3]. Thus, a hybrid, one day surgical simulation course, aligned to the curricula was designed for attendees to assess, resuscitate, and manage unwell surgical patients.

Methods: Candidates were chosen from the region on a first-come, first-serve basis, amongst medical students, foundation doctors, and core surgical trainees. Interactive workshops in the morning were based around theatre etiquette, surgical instruments, suturing, as well as assessing unwell surgical patients. These were followed by high-fidelity surgical scenarios, whereby the candidates were expected to reach a diagnosis, devise an initial management plan, and prepare their patient for theatre. The afternoon consisted of the same candidates carrying out the procedure required for their patient in a theatre setting with senior support available. Medical meat was used for the practical skills component and props, such as a Boyle's machine were used to simulate the theatre environment. The faculty also played the roles of theatre staff, including an anaesthetist, a scrub-nurse, a floater, and a runner. A high-definition audio-visual system streamed the simulation to the other candidates in the debriefing room. Each scenario was followed by a structured debriefing discussing technical and non-technical objectives, facilitated by surgical consultants. Pre- and post-course questionnaires were completed.

Results: Post-course, all candidates (n=8) provided scores for specific questions. An average of their response for each question, marked out of 10, is presented in Table 1.

Conclusion: It is vital to ensure that early exposure to surgical specialities is not disrupted as that is significantly detrimental for tomorrow's surgeons. Based on evaluation, our course was highly successful in achieving the goals described previously. The variety of candidates at different stages in their surgical career, sharing similar positive opinions about this course further highlights its suitability for all. We endeavour to run more of these courses in the United Kingdom and abroad to ensure that medical undergraduates, as well as surgically inclined junior doctors can develop key surgical competencies and thus are well equipped when caring for surgical patients.

Table 1: Survey results from 8 participants out of 10 points

TABLE 1

General satisfaction	10
Usefulness for doctors starting surgical rotations	10
Scenario appropriateness	9.57
Course structure satisfaction	9.85
How likely are you to recommend this course	9.85
Usefulness and fidelity	10

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EVALUATION AND DEVELOPMENT OF THE NOTTINGHAM NEUROSURGICAL SIMULATOR

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10.54531/UycX1838

Introduction: The success of the biannual 'QMC Craniotomy Simulator Course' [1] led to the development of the permanent Nottingham Neurosurgical Simulator and teaching programme, to provide regular in-house simulation opportunities for neurosurgical trainees and rotational junior doctors. The intention was to emulate training in the aviation industry by providing early exposure to basic neurosurgical procedures in a safe and controlled environment, in preparation for the transition to performing these on patients. The simulator comprises the ROWENA (Realistic Operative Workstation for Educating Neurosurgical Apprentices) simulation model [2] alongside surgical equipment identical to that used within the department. We have evaluated the impact of delivering monthly teaching sessions over the course of 3 years and will also present the anticipated future direction for this programme.

Methods: 35 teaching sessions have been delivered since 2019, totalling 75 hours of teaching, and 260 training man-hours. 16 sessions have been attended by trainee or registrar grade doctors, and 24 by junior doctors. The simulator can also be used for independent practice, of which 5 hours have been formally logged. The most popular and commonly delivered teaching topics have been patient positioning and 3-point headrest use (n=9) and insertion of intracranial pressure monitors (n=12) in addition to creation of burr holes (n=15) and craniotomies (n=7) using a variety of different drills. A dedicated session on ward-based procedures for incoming junior doctors has recently been implemented as part of the mandatory induction training.

Results: Feedback collected has consistently demonstrated an increase in self-reported confidence in performing a procedure following simulation teaching. 23 clinicians have achieved formal accreditation in safe use of the 3-point headrest as assessed by a senior consultant and accreditation in ultrasound-guided insertion of external ventricular drains will soon be offered. Assessment using the MOSATS (Modified Objective Structured Assessment of Technical Skills) tool [3] is currently being introduced to objectively track progress of attendees over time.

Conclusion: We have shown that regular neurosurgical simulation teaching improves the confidence of trainees and is suitable for accreditation of key procedural elements. We hope to further show that this is also reflected by objective improvement in skill as assessed using the MOSATS tool. We intend to develop the programme further by designing a prescribed curriculum and formative assessment process for both early years trainees and junior doctors.

Conflict of interest: Mr Ashpole is the inventor of the ROWENA simulation system.

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