INTRODUCING SSTORCC: SIMULATION FOR STRESS TESTING AND OPERATIONAL READINESS IN CRITICAL CARE

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Background: Hospitals are dynamic healthcare environments, adapting to challenges including increasing demand through the design and construction of new clinical areas. In-situ simulation has been used effectively in clinical settings to assess the strength and suitability of these clinical environments prior to their use [1]. Additionally, simulation has been more recently used in critical care settings to evaluate adaptations required in response to new challenges, including the COVID-19 pandemic [2]. We ran a one day in-situ simulation-based session called Simulation for Stress Testing and Operational Readiness in Critical Care (SSTORCC) to evaluate the operational readiness of a new twenty-four bedded critical care unit built at our hospital prior to its official opening to patients and staff. The aim was to assess the operational readiness of the new critical care unit and evaluate its safety for patients, with the objective being to identify problems that would affect this. The attendees were key members of the team and stakeholders so that issues that arose from the session were addressed in a timely fashion.
Methods: This in-situ simulation session followed a patient's journey from admittance to the new critical care unit and incorporated all aspects of patient care, including accessing the unit, the ergonomics of the bed space, and equipment availability. We simulated several emergency situations including emergency intubation and cardiac arrest, and a transfer from the unit to another area of the hospital.
Results: The session identified key areas of development and modifications required prior to the move of patients and staff to the new critical care unit. These included ensuring access to the unit for relevant staff at the hospital, clear labelling on each equipment trolley, assembly of emergency drug boxes for each of the four areas of the unit, and raising awareness about the location and opening of the new unit to the wider hospital.
Conclusion: In-situ simulation is a constructive tool to use in stress testing a new critical care unit and allows for efficient recognition of areas which require immediate action prior to being considered ready for operational use.

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MEDICS FOR MEDICS: INTRODUCTION OF A SIMULATION COURSE DESIGNED FOR INTERNAL MEDICINE TRAINEES PROGRESSING TO REGISTRAR TRAINING

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Background: The Curriculum for Internal Medicine Training [IMT] outlines that simulation should be used as a teaching tool during the three years of training to consolidate clinical knowledge and incorporate the importance of human factors in the clinical workplace [1]. Although simulation is used as the mainstay of teaching procedural skills for IMT trainees, we identified that there was no immersive simulation beyond this offered to these trainees at our Trust. This inspired us to design an immersive one-day simulation course, which we called MEDICS [Managing Emergency Decisions and Interventions in Critical Situations]. This course, aimed at IMT year 2 and 3 trainees, gives them the opportunity to lead in common medical emergencies, practise task prioritisation, and prepare for the role of medical registrar, with human factors integrated into these immersive scenarios.
Methods: We used the IMT curriculum and our discussions with IMT trainees to design seven scenarios with emergencies from each core speciality, which were highlighted as areas where IMT trainees felt less confident. Following each scenario, we held a 30-minute debriefing to highlight key clinical learning points and discuss the impact of human factors in the delivery of care.
Results: Post-course feedback for both pilot courses were overwhelmingly positive, with all candidates feeling that the course improved their confidence in dealing with these medical emergencies and enhanced their preparation for the role of medical registrar.
Conclusion: Immersive simulation is an effective means of giving IMT trainees the opportunity to practise leadership, delegation, and task prioritisation to improve their preparation for the step up to medical registrar.

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'WHO YOU GONNA CALL?': TRAINING MEDICAL STUDENTS IN TELEPHONE COMMUNICATION SKILLS THROUGH SIMULATION

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Background: Effective communication in the healthcare setting is essential for safe clinical practice and providing good patient care. Doctors frequently request and receive clinical tasks and information over the telephone, a skill which became even more important during the COVID-19 pandemic [1]. However, these skills are rarely incorporated into the medical school curriculum and new Foundation Year 1 (FY1) doctors lack the confidence and ability to effectively communicate over the telephone [2]. The aim of this project was to improve the confidence of medical students in communicating over the telephone in a clinical context using scenarios.
Methods: A team of post-foundation doctors created seven telephone-based scenarios representative of what a FY1 doctor could commonly experience on a ward. Each patient scenario involved two telephone calls to healthcare professionals (e.g.: doctors, nurses, pharmacists, allied health professionals) and/or patient relatives who were role-played by clinical teaching fellows (CTFs). Tasks included making requests and referrals,

taking collateral histories, asking for specialist advice, and updating the next of kin. Students entered the simulation suite individually and received a short verbal handover along with patient notes, then used their clinical judgement to decide who to call. The remaining students observed the live video stream with audio from a different room and also had access to the patient notes and results. A tutorial was given before the simulation session on confidentiality, how to use a hospital telephone, and how to use the 'Situation, Background, Assessment, Recommendation' (SBAR) referral tool. All students completed questionnaires before and after the simulation and confidence was measured on a 10-point Likert scale. Student-led debriefings after each scenario were facilitated by CTFs.

Results: A total of twenty-two fourth-year medical students participated. 73% had never received any formal teaching on telephone communication. 40% had never used the telephone during their clinical placements. 41% were not aware of the SBAR tool prior to the session. The questionnaire results from pre-simulation (M=4.24, SD=1.30) and post-simulation (M=6.57, SD=1.47) indicate that there was a statistically significant increase of students' confidence in communicating over the telephone, $t(22)=4.1$, $p<0.001$. Free-text feedback demonstrated an improved understanding of the most appropriate person to call in different situations.

Conclusion: Our results demonstrate the benefit of simulation in increasing the confidence of medical students in telephone communication. Formally incorporating this training into medical school curriculums may improve patient care involving FY1 doctors and ensure safer communication in clinical practice.

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WALK IN THEIR SHOES – IMMERSIVE 360-DEGREE VR EXPERIENCE OF DIVERSITY AND INCLUSIVITY IN THE NHS

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Background: Doctors within the NHS from black, Asian, and minority ethnic (BAME), and International Graduate backgrounds face differential attainment in their progression in the NHS and share differing experiences. It has been reported by the GMC that higher rates of complains against International Graduates may reflect the lack of induction and social integration within the NHS culture [1]. Virtual Reality (VR) provides an immersive platform, with viewers able to involve themselves in realistic scenarios remotely. We utilised 360-degree VR to produce a realistic scenario on the differing experience of a BAME, International Graduated Doctor on their first day in the NHS.

Methods: We created a 360-degree VR scenario reflecting a realistic situation of a new International Graduated Doctor and the impact on the behaviours in the professional and social aspects of the NHS. The scenario whilst fictional was informed by real experiences faced by Trainees in our Trust from BAME and other minority groups. The scenario was presented through VR headsets and post-video feedback was gained with anonymous surveys to Trainers (n=16) and Trainees (n=27) from differing ethnic backgrounds.

Results: 100% of participants found the video helpful, would recommend it to colleagues, felt immersed in the scenario due to the use of VR, and would be interested in similar Virtual Reality scenarios on different diversity topics. Within ethnicities, the majority of Caucasian participants felt able to talk and raise issues regarding diversity and inclusivity whilst ethnic minorities did not (Table 1). Comments gave insight to participants and their own experiences – with a British participant reflecting 'Felt ashamed that I have never thought of what happens to my colleagues new to the system' and ethnic minority participants feeling that the scenario 'resonated with their experiences'

Table 1: Differing opinions based on ethnicity on comfort in talking about and raising issues regarding diversity and inclusivity in the workplace

Table 1 : Differing opinions based on Ethnicity on comfort in Talking about and Raising issues regarding Diversity and Inclusivity in the Workplace

Do you feel comfortable talking about issues of Diversity and Inclusivity in your workplace / with seniors			
	Yes	No	Total participants
Trainees	44%	56%	27
British / Caucasian	100%	0%	8
Asian or Asian British	25%	75%	12
Arab or Other ethnicity	14%	86%	7
Mixed			
Trainers	63%	38%	16
British / Caucasian	50%	50%	6
Asian or Asian British	17%	83%	6
Arab or Other ethnicity	33%	67%	3
Mixed	100%	0%	1

Do you feel comfortable raising issues regarding Diversity and Inclusivity in your workplace / with seniors			
	Yes	No	Maybe
Trainees	26%	56%	19%
British / Caucasian	88%	0%	13%
Asian or Asian British	0%	67%	33%
Arab or Other ethnicity	0%	100%	0%
Mixed			
Trainers	38%	38%	25%
British / Caucasian	100%	0%	0%
Asian or Asian British	0%	67%	33%
Arab or Other ethnicity	0%	67%	33%
Mixed	0%	0%	100%

Conclusion: VR and 360-degree platforms allow an extremely immersive and realistic resource for sharing difficult experiences faced by healthcare workers from various backgrounds within the NHS. Importantly viewers are able to experience and be involved in difficult scenarios within a safe and non-threatening space, allowing reflection and the empowerment for speaking up. By utilising this immersive educational tool, we were able to share the differing experiences faced within the NHS by BAME and International Graduate groups, allowing reflection for change. We hope to further utilise this platform to share the many experiences faced by healthcare workers thus providing insight into the diverse community and improving diversity and inclusion within the NHS.

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HEALTH VISITING SIMULATION TRAINING DIFFICULT CONVERSATIONS – KEEP CHILDREN SAFE

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