

IMMERSIVE, CROSS-DEPARTMENTAL SIMULATION – MAPPING EMERGENCY OBSTETRIC CARE FROM ADMISSION TO DELIVERY

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Background: ‘Translational’ simulation activities are effective at improving patient safety when directed towards a specific patient journey [1]. North Bristol NHS Trust cares for around 6,000 obstetric patients per annum, with around 1,000 infants delivered by unplanned caesarean section each year. The in-situ simulation presented here facilitated an in-depth exploration of our cross-departmental response to a hypertensive pregnant patient presenting to the Emergency Department (ED). Severe pre-eclampsia in a preterm patient is a complex clinical scenario which, akin to previous successes seen with trauma care, may benefit from simulation focused on teamwork behaviours. The potential for benefit was optimised by application of the ASPIH Standards for Simulation-Based Education [2].

Methods: The aim of the simulation was to prospectively identify latent safety threats to emergency obstetric care in patients presenting to the Emergency Department at Southmead Hospital. An in-situ simulation was conducted to simulate a pre-term woman presenting with pre-eclampsia and reduced conscious level. The high-fidelity scenario involved collaboration from 28 staff in emergency medicine, radiology, obstetrics, neonatal medicine, anaesthetics, and theatres as the patient journey evolved, ending in emergency caesarean section in the non-obstetric emergency theatre complex. Members of the expert panel acted as passive observers to record an accurate log of events during the scenario. A formal debriefing was conducted at the conclusion of the simulation where participants were invited to discuss potential hazards arising from the scenario. Failure modes and effects analysis was employed to assess the identified latent risks [3].

Results: Ten latent safety threats were identified from the simulation. These were stratified according to severity and action plans were agreed to address them. Cross-departmental changes are being instigated and tested. These include amendments to emergency grab-bags, implementation of site-wide tools for location mapping in clinical emergencies, wider availability of the obstetric WHO checklist in emergency theatres, and clarification on the availability of blood for neonatal transfusion in non-obstetric theatres.

Conclusion: This immersive scenario engaged clinical teams from a number of specialities and clinical areas across the hospital. Reflecting a real-life patient journey allowed for a rich and nuanced understanding of the response to an evolving emergency scenario. Cross-departmental collaboration in simulation-based training can be effective in assessing latent safety threats, particularly where staff operate in unfamiliar environments. Through carefully conducted debriefing, task allocation and follow-up, it is possible to diagnose and treat a broad range of latent threats to workflow, systems and processes.

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DOES ADOPTING THE ROLE OF THE PATIENT PROMOTE POSITIVE CHANGES IN STUDENT EMPATHY, COMPASSION, AND COMMUNICATION SKILLS?

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Background: Simulation-based education is frequently used to develop empathic behaviours in medical and nursing students [1] however to our knowledge, there is no previous literature that develops such behaviours by allowing students to adopt the role of simulated patient as they are admitted acutely to hospital. The aim of our project was to explore changes in empathy, compassion, and communication styles by asking students to adopt the role of the simulated patient during the undergraduate multidisciplinary simulation.

Methods: Undergraduate final and penultimate year medical and nursing students who were undertaking their emergency medicine rotations were asked to participate. The simulation was delivered every 5 weeks, with one student adopting the role of the patient during the scenario. Two other students involved in the scenario adopted the role of the nurse and physician respectively. Data was collected via questionnaires and focus groups which were conducted immediately following the simulation. Questionnaires asked students to rank their agreement to several statements relating to improvements in empathy, compassion, and communication skills using a 1–5 ranking system, with 1 strongly disagreeing and 5 strongly agreeing. Focus groups were used to explore student opinions with the data transcribed and analysed into themes.

Results: 61 undergraduate students have participated thus far. 95% of participants agreed that adopting the role of patient provided them with a greater insight into the patient journey through the emergency department. 91% of participants agreed that they felt more empathy towards patients admitted acutely to hospital. Analysis of qualitative data shows improved empathy, compassion, teamwork, and communication with patients and colleagues within the multidisciplinary team. Students also developed a greater insight into how the unfamiliar hospital environment, lack of visitors, and COVID-19 precautions can negatively impact the patient's journey. Finally, all students commented on how this simulation will positively influence their future practice.

Conclusion: Providing students with the opportunity to adopt the patient's role has been shown to positively influence their empathy, compassion, teamwork, and communication skills. Future work will focus on whether these changes have been sustained and incorporated into clinical practice.

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USE OF HIGH-FIDELITY SIMULATION TO ENSURE INCLUSIVITY AND EQUALITY OF INTERNATIONAL MEDICAL GRADUATES

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Background: The UK medical profession is becoming increasingly diverse as the number of international medical graduates (IMGs) joining the UK medical workforce increases every year. However, IMGs face a number of significant sociocultural and educational challenges. Recent studies show that IMGs lack insight into the system and lack clarity in relation to the role of a supervisor, career pathways, and medico-legal and ethical issues [1,2]. They exhibit differences in clinical practices and team dynamics. Recent studies suggest the introduction of dedicated induction programs in the form of formal teaching sessions, or tailored online induction for IMGs prior to their first job [1–3]. Most IMGs have minimal exposure to simulation and human factors training with international medical schools favouring more didactic methods of education. We have designed a high-fidelity simulation course with frequently encountered clinical scenarios to improve inclusion and a harmonious transition for the IMGs. This provides an opportunity to familiarise themselves with the healthcare system and team dynamics within the NHS and instils confidence to perform to the best of their ability in their respective roles.

Methods: The course has been designed specifically tailored to the needs of IMGs who may find it daunting at first to make their place in a completely new system. We employ high-fidelity simulation encompassing multiple frequently encountered clinical scenarios. The scenarios are followed by a debriefing, with a special focus on human factors, interpersonal and communication skills, and understanding of authority gradients. The attendees are also encouraged to reflect on their performance and to participate in the discussion, share their professional opinions, experiences, and cultural influences. The attendees are asked to fill a pre-course and post-course questionnaire.

Results: Two pilot courses were conducted with a total of 22 attendees. Pre- and post-course feedback with reflective questions about various aspects of the course was obtained. The scenarios assessed 5 categories, which the IMGs graded on a Likert scale. Pairwise comparison was performed between pre- and post-course feedback, showing a statistically significant increase in confidence levels related to all assessed categories; basic management skills ($p < 0.001$), clinical skills ($p = 0.006$), communication skills ($p < 0.001$), teamwork ($p < 0.001$), and leadership ($p < 0.001$).

Conclusion: Based on the positive feedback from attendees we believe that this induction simulation course can greatly help IMGs have a smooth transition into the NHS, and ensure inclusivity by equipping them with confidence, a knowledge of the system, and human factors.

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THE ABCS OF A GYNAECOLOGICAL TEACHING ASSOCIATE (GTA) PROGRAMME

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Background: Gynaecological/Male Urogenital Teaching Associate (GTA/MUTA) methodology is considered the gold standard of invasive genital examination technique. Lay persons are trained in the technique of invasive genital examinations and patient-centred, trauma informed communication, and autonomously instruct learners on how to comfortably perform this examination using their own bodies as a teaching tool.

Methods: GTAs/MUTAs function simultaneously as an autonomous instructor and a simulated patient during the exam. GTAs and MUTAs instruct clinical invasive examination techniques in a structured educational setting with a predetermined curriculum on which they have been trained, while letting learners perform these exam techniques on their bodies. Existing alternatives to GTA/MUTA education include the use of anesthetized patients, cadavers, plastic anatomical models (task trainers) and/or voluntary examinations on peers.

Findings: There are unique benefits to the GTA/MUTA programme from both an institutional and learner perspective. Learner's benefits unique to GTA/MUTA education include decreased learner anxiety [1], immediate feedback on examination technique with regard to patient's physical comfort, and the opportunity to practise patient communication skills while performing such examinations. Institutional benefits unique to GTA/MUTA methodology are that after the initial setup cost, funds are saved removing the need for faculty to perform the examination instruction. Learner proficiency is higher compared to learners taught by physicians [1], and increased proficiency saves time and cost associated with learners being taken off clinical rotation to receive supplemental genital examination technique instruction. The use of simultaneous patient-instructors also introduces 'elements of sensitivity and humanism' to the examination [2] by having students learn to involve their patient and incorporate their perspective with regard to comfort and patient education information. By learning this examination from GTAs/MUTAs, a new model of physician patient relationship is taught, with GTAs/MUTAs functioning as informed collaborators rather than docile, uninformed patients [3].

Conclusion: In order to implement such a programme in an institution, among the first tasks is to obtain funding. This funding can be sought from grants or via institutional funds. Institutions may even choose to grow their GTA/MUTA programme to contract with outside institutions where this clinical examination instruction is needed. Other preparatory