

WHY SHOULD MEDICAL, MIDWIFERY AND PARAMEDICAL STUDENTS TRAIN TOGETHER?

Interprofessional education (IPE) is increasingly recognised as a valuable tool in healthcare education, particularly for improving communication, collaboration, and patient outcomes (Kenaszchuk et al., 2011, Kyrkjebo et al., 2006, Foronda et al., 2016). In obstetrics, where a multidisciplinary approach is essential, interprofessional collaboration is especially crucial. Unfortunately, medical, midwifery, and paramedical students often receive training in silos, limiting opportunities for collaborative learning and professional development.

To address this gap, we developed an interprofessional obstetric simulation training program embedded into the patient safety day for Oxford medical, Oxford Brookes midwifery, and paramedical students. This program aimed to enhance students' understanding of professional roles, strengths, and unique contributions of each healthcare profession through team-based simulations of obstetric emergencies. The primary objective of this poster is to present the results of the program and demonstrate the significance of interprofessional education in promoting effective teamwork in obstetrics.

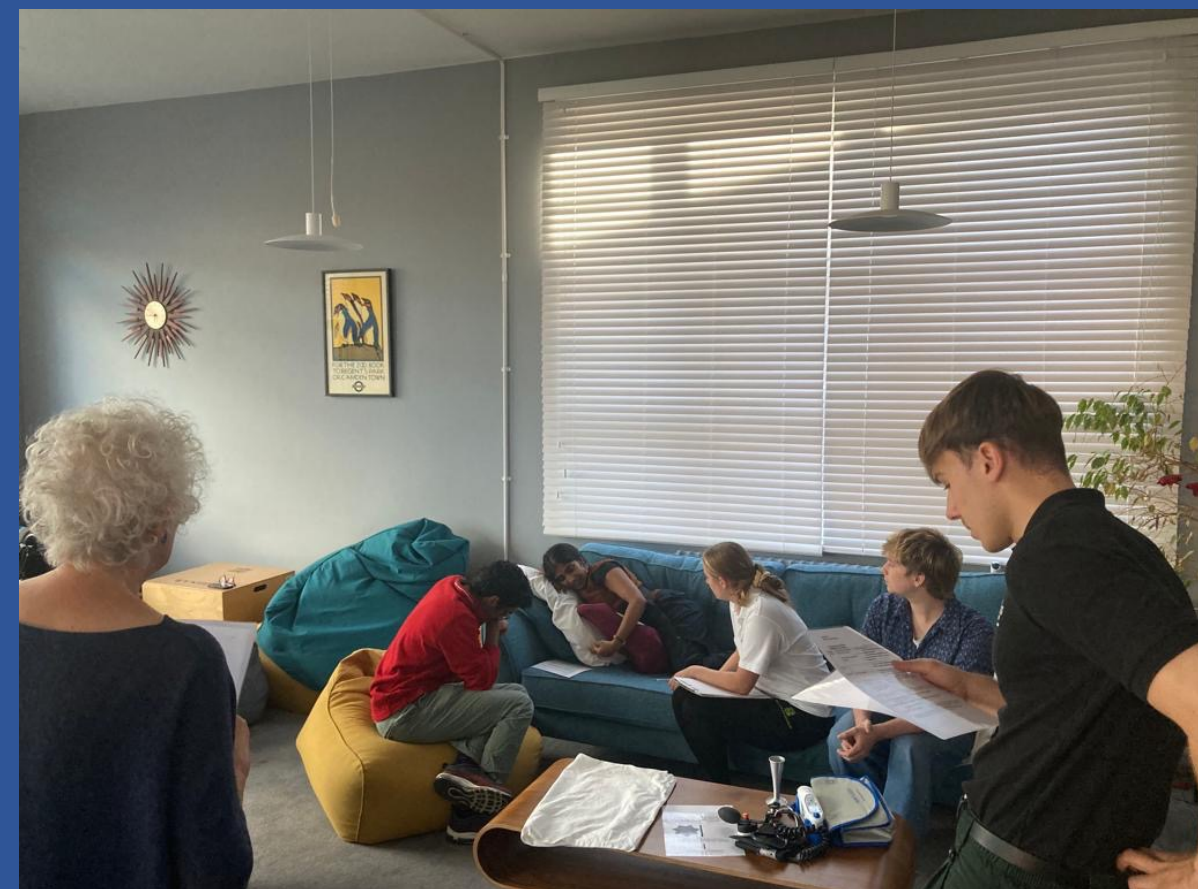
HOW WAS THE SIMULATION TRAINING SET UP?

DEVELOPING THE MATERIALS

CONDUCTING THE SIMULATION

- September 2021: A working group consisting of senior lecturers, students from the three professional groups, a simulation DPhil student, who acted as liaison and coordinator, and an education manager was formed.
- The group engaged in an iterative process to develop two simulation scenarios; managing eclampsia during homebirth and postpartum haemorrhage at the hospital, following the journey of same patient.
- Specially designed algorithms and instructions for both faculty and students were prepared for the simulation.
- To refine the materials, a pilot simulation was conducted on February 18th, 2022. Each scenario runs for 20 minutes, followed by a 20-minute debrief session.
 - Oxford Brookes University simulation facilities were used.

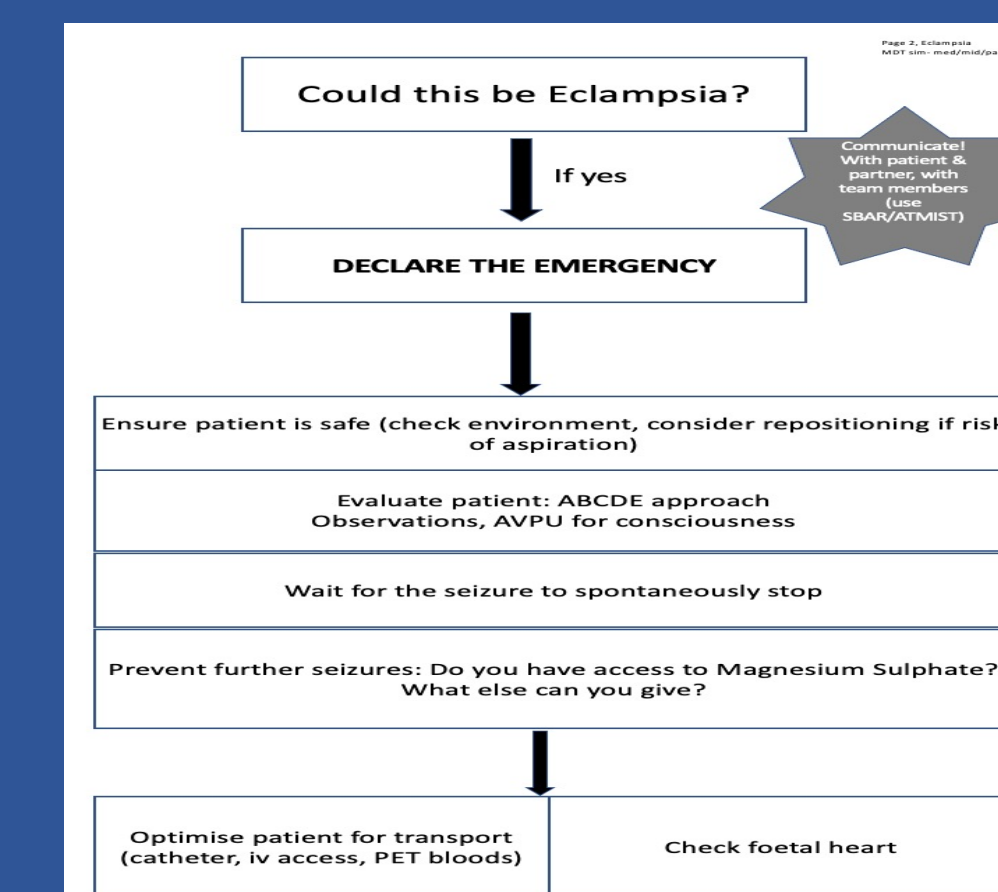
- To promote patient safety, the simulation afternoon is preceded by morning lectures that emphasize the importance of interprofessional collaboration.
- The students are divided into groups of seven, with equal representation from the medical, midwifery, and paramedical professions.
- Throughout the day, students sit in their assigned groups, allowing them to get to know each other and develop a sense of teamwork.
 - To facilitate the simulation, each group is assigned two faculty members.
 - The simulation session begins with a brief introduction, emphasizing the need to understand the roles, strengths, and unique contributions of each healthcare profession.
- To evaluate the simulation's effectiveness, data was collected with Likert scales and word clouds on the Mentimeter platform before and after the simulation.



Left: Simulation set up to depict a home birth in the eclampsia scenario. The two facilitators in the foreground are a midwife and a paramedic. *



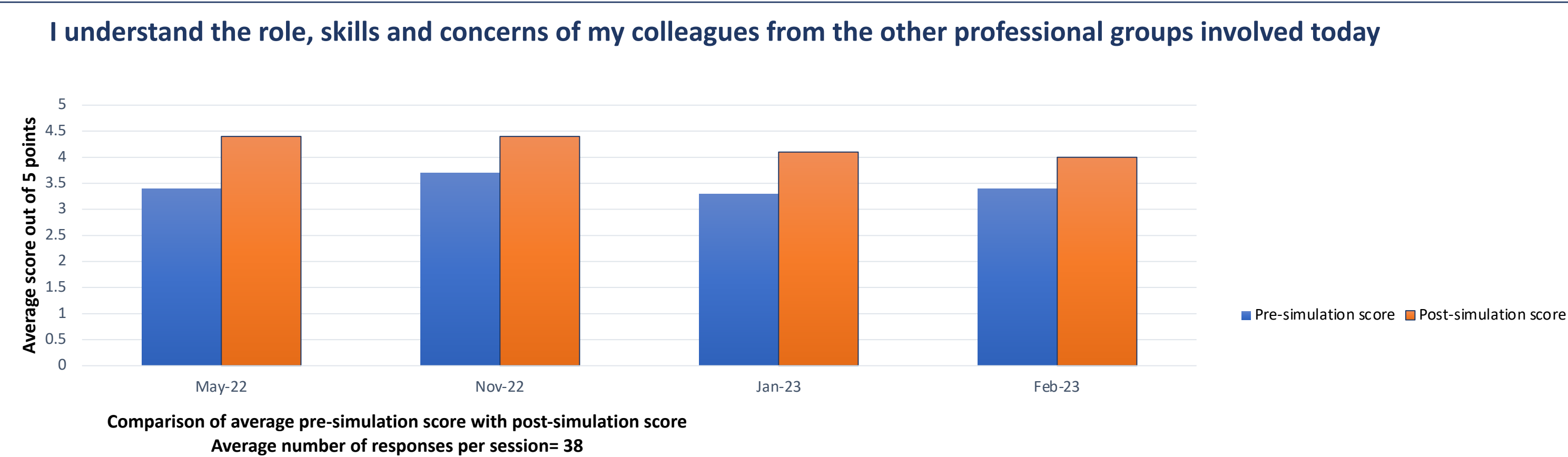
Left: Example of simulation equipment: strap-on uterus (worn by the participant) with a baby to simulate birth and postpartum haemorrhage. Participants enact each management step, including uterine massage on the model. Cards indicate blood loss, adding up to a total of 900 ml.*



*All images are used with permission

Left: An example of the algorithm specifically created for this simulation.*

WHAT WAS THE IMPACT?



In all four iterations, the p-value was < 0.05 , indicating that the difference between pre and post-test scores is statistically significant. This means that the simulation training program had a significant impact on improving the students' understanding of professional roles.

WHAT IS THE MOST USEFUL THING YOU HAVE LEARNT ABOUT CREATING A TEAM?



The prominent themes were communication, respect and delegation in the feedback from all sessions. An example of one of the world clouds is presented here.

WHAT IS THE MOST SURPRISING THING YOU HAVE LEARNT ABOUT ANOTHER PROFESSION'S ROLE



The prominent themes were appreciating the knowledge and skill of midwives and paramedics, present in the feedback from all sessions. An example of one of the world clouds is presented here.

OUR REFLECTIONS

We have conducted six iterations of the simulation, refining the materials and ensuring their effectiveness by incorporating feedback from both students and staff. In this poster, we share the results obtained from the first four sessions. The simulation is now a routine part of the course curriculum for the three professional groups.

One of the main challenges we faced was to ensure the simulation was standardised and consistent for all the participating groups. To achieve this, the DPhil student was assigned to observe the sessions and worked with the faculty before every iteration to review the material and discuss the plan. By the fifth and sixth sessions, we were able to reach a level of consistency and didn't require the pre-briefing anymore.

REFERENCES

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MAESZCHUCZ, C., MACMILLAN, K., VAN SOEREN, M. & REEVES, S. 2011. Interprofessional simulation learning: short-term associations between simulation and interprofessional collaboration. *BMC medicine*, 9, 1-10.

KYRKJÆB, J. M., BRATTEBØ, G. & SMITH-STØRM, H. 2006. Interprofessional collaboration. *BMC medicine*, 9, 1-10. Improving patient safety by using interprofessional simulation training in health professional education. *Journal of interprofessional care*, 20, 507-516.

If you would like to participate as faculty for the simulations, please email james.matejtschuk@wrh.ox.ac.uk