

Methods: To construct the model, plaster gauze, metal wires and u-channel rubber trims were used to build a ribcage. Soy-protein-based sausage casing was used to create the pleural layers, and the muscles and subcutaneous fat were represented with ADAMgel (Aqueous Dietary fibre Antifreeze Mix gel), a novel material with tactility and dissection sensation similar to human soft tissue [2]. Synthetic chamois leather was used to represent skin. The resulting model allowed locating the safe triangle using anatomical landmarks, blunt dissection of muscles, pleural puncturing and advancement and suturing of the chest tube. The model cost less than £130, and it could be repaired after over 20 uses with less than £15. Verbal consent on study participation was obtained from all participants who performed chest drain insertion on the model and evaluated its fidelity and educational value using an anonymized Likert scale questionnaire. All questionnaire responses were converted to numerical values for data quantification, as shown in [Table 1-A4](#).

Table 1-A4: Median and range of questionnaire responses collected from study participants

Questionnaire item	Experienced clinicians	Inexperienced clinicians
	Median [range]	Median [range]
Model in general allowed learning of chest drainage techniques.	4 [1-5]	5 [4-5]
Model in general adequately resembles real-life patients.	4 [3-5]	3 [2-5]
If you have experience with other models: this model resembles real-life patients better than other simulation models.	4 [2-5]	3 [2-5]
Model is appropriate as simulation-based teaching material for inexperienced trainees.	4 [4-5]	4 [4-5]
I would recommend this learning tool to others.	4 [4-5]	5 [4-5]
I would use this model for teaching purposes.	4 [3-5]	N/A
Overall, I am satisfied with the training model.	4 [3-5]	5 [4-5]

Results: Sixteen senior clinicians with multiple experience on chest drain insertion and 11 junior clinicians with limited experience took part in the study. Anatomical and haptic fidelity of the model was evaluated very highly amongst experienced clinicians. Junior doctors stated increased confidence in performing the procedure, overall assessing the model as an appropriate learning tool. Twenty participants with previous training experience compared the quality of this model to other commercial or animal-based models, and 18 rated this model to be of the same or superior quality.

Conclusion: This chest cavity model is suitable for simulation training of chest drain insertion. Importantly, the model excluded the use of animals under the principle of replacing, refining and reducing animal use in research [3]. Further training opportunities that utilize this model can increase clinician competence in the procedure, which can improve clinical practice and reduce patient mortality.

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

A5

SUSTAINABLE HEALTHCARE PLACEMENT PREPARATION: ENHANCING AHP STUDENT PREPARATION THROUGH IMMERSIVE SIMULATION AND ONLINE LEARNING

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Background and aim: In 2021, a diverse international and inter-professional team designed and implemented an intensive in-person simulation week and an interactive online learning programme to enhance student preparation for clinical placement (the Clinical Placement Enhancement Project) supported with funding from Health Education England. The simulation programme aimed for students to develop their patient-centred communication skills, assessment and therapeutic management by attending three simulation scenarios and inter-professional understanding through participation in a multi-disciplinary team (MDT) meeting. The bespoke online programme was designed with similar learning outcomes and utilized various learning materials, including 360° images of clinical environments linked to case studies.

Methods: The study design was an integrative mixed-methods feasibility study, with 29 AHP students participating in the simulation and 24 students taking part in the online arm of the study. Students from physiotherapy, occupational therapy and podiatry self-selected their preferred delivery mode for placement preparation. The evaluation explored the experiences of both domestic and international students attending the simulation and using the online learning. In addition, perspectives of the clinical educators and actor role players were explored. Data were inductively analysed using a reflexive thematic approach and integrated with the quantitative data.

Results: The key findings from the pilot study showed the value of the simulation programme in allowing students to apply their learning, particularly helping them to develop their confidence in communication, rapport building and interventions. By contrast, the online learning programme was most effective at developing students' clinical reasoning and proficiency with documentation [1]. We have built on these findings this year, to upscale the simulation programme to include all first-year AHP students ($n = 130$). We have reduced the number of scenarios from three to one, choosing the frailty scenario as this meets the generic outcomes for the programme and the profession-specific learning outcomes. We have retained the MDT simulation as an inter-professional simulation but modified the delivery

from a 'fishbowl style' to a theatre forum to increase capacity. We have updated the online learning programme to be used as a supplementary learning resource before and during the simulation week. The content has been organized into inter-professional and profession-specific learning materials so that the site is easily navigated and accessible.

Conclusion: By combining the immersive simulation with the online learning, we have created a sustainable and achievable approach to better prepare AHP students for clinical placement, and this combined approach may help to reduce the burden for our clinical educators.

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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EDUCATION

A6

VIRTUAL REALITY SIMULATION AS A TOOL FOR ENT TRAINING: AN AUTOETHNOGRAPHIC STUDY

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Background and aim: Autoethnography is an emerging category of qualitative research that seeks to connect the rigorous analysis of traditional science with the undeniable influence of human experience [1]. Despite remaining under-utilized within surgical and simulation-based education research [2], autoethnography has great potential for sharing systematic, personal reflections with the wider readership, particularly with surgical trainees who rely on experiential learning as a cornerstone of their training. This study examines the use of autoethnography to investigate virtual reality (VR) temporal bone (TB) drilling simulation as a learning tool for Ear, Nose and Throat (ENT) training from the perspective of a surgical novice.

Methods: The primary researcher undertook 16 three-hour sessions learning to perform a virtual cortical mastoidectomy on the Voxel-Man TempoSurg (VMT) TB simulator from October 2021 to July 2022. Qualitative data including field notes and reflective journal logs were collected using a template. These data were coded using NVivo12 and analysed using inductive thematic analysis. Additional quantitative data on surgical simulation performance derived from the Modified Welling Scale and Modified Stanford Assessment were plotted using Microsoft Excel and statistically analysed using simple linear regression.

Results: Six themes were ultimately yielded relating to the learning experience: (1) VMT as a surgical learning tool, (2) internal and external causes of rushing leading to inaccuracy, (3) overcoming VMT technological issues, (4) reflecting on reflection and the importance of feedback, (5) the physical impact of surgery on the operator and (6) overcoming demotivation. The author's reflections on each theme were subsequently discussed in detail and analysed in the context of the current literature to meet the study objectives.

Statistical analysis of the quantitative data demonstrated statistically significant improvements in procedural skills and ability over the 16-session period ($p < .001$).

Conclusion: This study demonstrates a novel application of autoethnography showing VR TB simulation to be an effective ENT training tool for learning anatomy and technical skills when used in combination with the regimented reflection and feedback of autoethnography. We found that rushing caused by assessment-driven behaviour and hunger led to errors. These errors led to demotivation and stress, emotions frequently experienced by operating surgeons [3]. Therefore, we have also demonstrated that VR TB simulation can successfully model several human factors commonly found in operating theatres which must be self-identified and prompt seeking senior support to prevent patient harm. This evidence should provide a springboard for future autoethnographic research in the field of surgical and simulation-based literature.

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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EDUCATION

A7

'WE ARE ALL HERE TO LEARN' – AN INTERPRETATIVE PHENOMENOLOGY ANALYSIS STUDY OF THE LIVED EXPERIENCES FOR CLINICAL NURSE EDUCATORS FACILITATING INTERPROFESSIONAL SIMULATION-BASED EDUCATION

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Background and aim: There is a plethora of research on the benefit of a collaborative learning amongst participants in inter-professional education and simulation-based education [1,2]. It would be insightful to explore how this concept of shared learning extends to the faculty members facilitating these educational sessions. From the perspective of the clinical nurse educator, this research study offers a unique insight into the nature of the collaborative teaching experience, processes of knowledge acquisition, and transferability of learning and their influence on both clinical and teaching practice.

Aim: To illuminate the lived experiences of clinical nurse educators facilitating inter-professional simulation-based education (IPSBE) to gain deeper insight into how this approach can influence their future practice.

Methods: An interpretative phenomenology analysis (IPA) was chosen as the qualitative research approach for this study as it sought to illuminate the experiences of clinical nurse educators through the interpretation and validation