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[10.54531/UBQY4772](#)

**Background and aim:** A local course has been delivered since 2018 to provide training in rare, time-critical, life-saving procedures that emergency medicine trainees may need to perform, including emergency lateral thoracotomy. Previously pig thoraxes have been used to provide thoracotomy training in this course. In 2022 a part-task model was purchased for thoracotomy training to replace this. We compare the use of this to animal models in our provision of simulation teaching of this skill.

**Activity:** Animal models are useful due to availability, low cost, and provision of hands-on experience for learners. However, there are associated ethical, religious, psychological limitations with using animals for educational purposes. They may less accurately represent human anatomy and pathology. Their timely acquisition can pose a challenge with defrosting requirements and variable condition which can impact on the quality of training. There are infection risks due to fluid leakage, associated unpleasant odour and animal products require incineration for disposal.

The high-fidelity part-task mannequin can anatomically and physiologically replicate the thoracotomy experience to provide realistic simulation training. The mannequin is equipped with realistic external human features and internal organ anatomy, including a beating heart and blood, to provide an immersive training experience. It is reusable with repair, which could be cost-effective long term and more environmentally-friendly. This model enables thoracotomy skill practice in a safe, controlled environment without infection risk. Another advantage is the ability to provide standardized training, better allowing for objective evaluation of performance which can be challenging with animal models.

**Findings:** This model (Figure 1-A108) has been a source of highly stimulating learning for both faculty and participants taking part in the course. The accurate anatomy has given an enhanced learning of real time simulated emergency requiring lateral thoracotomy and this has been reflected in participant feedback. There was a significant upfront cost which will depend on the continuation of the course, committed faculty and upkeep of the model to prove it cost-effective in the long run. The education team attended a course on the repair and maintenance of the model and it takes approximately 4-6 hours to clean and repair the model after each use. The model requires a large heavy box for safe storage posing a relative burden given its infrequent use.

**Conclusion:** There are disadvantages to use of this model for the department, but the overall learning experience and sustainability is felt to be superior to animal models for training in emergency thoracotomy.

**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.

## REFERENCES

1. Patronek GJ, Rauch A. Systematic review of comparative studies examining alternatives to the harmful use of animals in biomedical education. *J Am Vet Med Assoc.* 2007;230:37-43.



**Figure 1-A108:** The immersive lateral thoracotomy model we are using, which is fully repairable to be used multiple times for authentic learner experience

## DESIGN

A109

### A SIMULATION ESCAPE ROOM: DOES GAMEFUL TRAINING PROMOTE ACTIVE LEARNING AND STUDENT ENGAGEMENT

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**Background and aim:** Gamification of learning is becoming increasingly popular within higher education [1]. Student activities described as 'gameful training', including Escape Rooms, have reported additional learner benefits including improved teamwork, creative thinking and communication skills compared to traditional session designs [2]. There is a small number of existing case studies demonstrating their utilization within healthcare professional education and the reported additional benefits included pertinent skills such as task delegation and leadership, as well as being an engaging teaching strategy that promotes active learning [3].

**Activity:** A trial simulation escape room was created and implemented for level 5 adult and mental health branch nursing students within a Higher Education Institution. 12 different teams of students entered the escape room and worked together to 'treat Arthur', a patient presenting with acute anxiety and chest pain. Students were required to assess, escalate and manage Arthur effectively and would 'escape the ward', once he had received all of the required treatment.

The learning outcomes for the scenario and subsequent puzzles and tasks were created based on recent curriculum teaching allowing students to apply prior learning within the escape room environment. Puzzles included coded locked boxes and students were required to apply relevant knowledge, such as answering pharmacology questions, to generate codes and progress throughout the scenario. Simulation equipment was utilized and students unlocked clinical treatments and medical devices which in turn had to be delivered to Arthur. The facilitator maintained an active role within the scenario and allowed students to practise communication skills such as escalating their concerns about Arthur via the telephone.

It must be noted that the design time was significant for one scenario and required several pilots to ensure that all

components were cohesive. Full support and creative input was required from the simulation technicians to ensure the activity's success.

**Findings:** Students fed back that they enjoyed the activity and were observed to work effectively together and prioritize and delegate throughout the task with minimal supervision. Students also stated the scenario context was helpful to apply their prior learning and were pleased that they had been able to manage this patient presentation together. Feedback from facilitators was also positive and both staff and students found it to be an engaging experience.

**Conclusion:** Simulation escape rooms offer an innovative and engaging way for students to apply learning and vital practice technical and non-technical skills. For educators, clear learning outcomes and allowing sufficient design time is a necessity.

**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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3. Brown, N, Coronal, H and Darby, W (2019) An Escape Room as a Simulation Teaching Strategy. Clinical Simulation in Nursing 30, P1-6. [Online] DOI:<https://doi.org/10.1016/j.ecns.2019.02.002>

## DESIGN

A110

### SIMULATED PHYSIOTHERAPY PLACEMENT: AN ALTERNATIVE TO CLINICAL PLACEMENT FOR FIRST YEAR UNDERGRADUATE PHYSIOTHERAPY STUDENTS

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**Background and aim:** To address the existing workforce deficit within Physiotherapy an extra 500 Physiotherapists need to be trained every year - an additional 15% of current student numbers. The biggest barrier to expansion of student numbers is placement capacity. Novel and innovative models of placement are being trialled, with a strong emphasis on the four pillars of clinical practice. Simulation, and virtual based placements offer alternative models of placement provision [1]. Current literature has detailed successful simulated clinical placement within Physiotherapy using full or partial substitution of clinical placement. It has been shown that switching up to 25% of practice learning to a simulated model does not compromise student attainment or competency [2]. However, these studies tend to involve small student numbers. For simulated placements to be a practical alternative they need to be delivered at scale. The aim of this pilot project was to develop, deliver and evaluate an on campus simulated placement experience for 140 first year Physiotherapy students at a large UK university.

**Activity:** A four-week program of activities was designed to simulate the core learning that occurs on a typical physiotherapy clinical placement. Including case scenarios with standardized patients, virtual case discussions with clinicians, expert patient panel, day in the life of videos, note writing workshops and live streaming of patient sessions. Students attended two observational days in practice with structured debriefing on campus. Themes for the placement included communication, risk assessment, patient journeys, wellness and effective learning on placement. The development of the learning activities was research and stakeholder informed. Clinical scenarios were co-designed with level 5 Physiotherapy students.

**Findings:** Placement evaluation was collected via a questionnaire including open ended questions and Likert scales (0-5). Students agreed that that placement was engaging and interesting (mean score of 3.45), with the greatest agreement that the placement had improved note writing, communication and understanding of professionalism. Students ranked simulated clinical scenarios and observation as their preference for activity, with peer learning to support these activities to be ranked the lowest.

A review of placement attainment data noted a correlation with previous clinical placement data. There was an increase in a student's perception of their preparedness to go on a clinical placement pre and post simulated placement.

**Conclusion:** Large scale, simulated on campus placements are workable and a useful learning experience for first year Physiotherapy students.

**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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## CONTENT

A111

### UNDERGRADUATE NURSING PROGRAMME ENTRY: ENCOURAGING OFFER HOLDERS TO SELECT THEIR UNIVERSITY OFFER, BASED ON AN INFORMED OVERVIEW OF PROGRAMME CONTENT

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10.54531/OABL3616

**Background and aim:** Choosing the right university and programme is crucial for aspiring nursing students and their families. With so many options available, it can be challenging to make an informed decision [1-3]. The aim of this initiative was to provide student nurse offer-holders and their parents/partners with an overview of the undergraduate nursing