

virtually, we developed an online, gamified interactive video simulation exemplifying the management of an acutely unwell patient. The simulation was tailored to prospective medical students in secondary school during a virtual work-experience programme. We propose that this approach is potentially translatable across the healthcare profession at both undergraduate and post-graduate levels, thus allowing for teaching to be more engaging, participant-led, and accessible.

Aim: Our aim was to demonstrate the feasibility of a novel gamified online simulation approach to teaching the management of acutely unwell patients.

Method/design: Using elements of gamification and interactive film, this virtual session was designed to teach prospective medical students the 'A to E' approach of managing an acutely unwell patient. The management of an acutely unwell patient is an iterative and dynamic process that requires one to manage uncertainty and constantly re-evaluate the clinical situation. The session was designed using interactive film, with students given the ability to influence a clinician's actions and subsequent changes of clinical scenario dictated by student live-vote. This interactive and engaging approach allowed students to reflect-in-action and be active learners, in line with an experiential pedagogy [2].

Implementation: Students attended a live session using a video conferencing service (Zoom) and their responses to clinical scenarios were recorded using an online voting tool (Mentimeter). Students were provided with a case history of an unwell patient and presented with an opening video. The session required video options to be pre-recorded to reflect the numerous potential avenues within the scenario as dictated by the students' chosen actions. Depending on overall student voting consensus, pre-recorded videos of the clinician's actions and changes to the clinical scenario were subsequently shown. For example, if the appropriate clinical action was selected, students would progress through the A-E approach. Students effectively guided the clinician to manage the unwell patient, with iterative and real-time feedback provided throughout the scenario. The session was concluded with a debrief, explanation of the case and key learning points.

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SEQUENTIAL SIMULATION AS REPLACEMENT FOR STANDARD 4-WEEK PRACTICE-BASED LEARNING (PBL) FOR FIRST-YEAR UNDERGRADUATE PHYSIOTHERAPY STUDENTS

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Background: Practice-based learning (PBL) via clinical placement is a core part of a physiotherapy degree with the Chartered Society of Physiotherapy (CSP) requiring completion of 1000 placement hours. The COVID-19 pandemic resulted in cancellation of placements on top of an already saturated geographical placement provision in certain regions with many Higher Education Institutes (HEI) reporting a backlog

of placements. Inability to meet requisite placement hours impacts on student progression, reducing the flow of physiotherapists into the workforce at a time when Allied Health Professions (AHP) growth has been planned. The CSP and Health and Care Professions Council (HCPC) have both encouraged HEIs to be innovative in placement provision in response. Simulation is widely utilized in healthcare training but remains an emerging concept in terms of placement replacement [1]. Previous examples have demonstrated simulation being used to enhance placement delivery [2] but a dearth of examples exist within the UK for fully simulated placements.

Aim: The aim was to develop a fully simulated placement that replicated the learning objectives achievable through standard PBL.

Method/design: Development of a novel placement model to deliver a fully simulated placement as replacement for a standard 4-week clinical placement scheduled for 15 (20% cohort) first-year physiotherapy students.

Implementation outline: The placement was split across clinical specialties within cardiorespiratory and musculoskeletal physiotherapy. Key objectives were set weekly: week 1, focussing on communication/patient-centred care (scaffolded across subsequent 4 weeks); week 2, focussing on assessment, patient management and clinical reasoning; week 3, consolidation of clinical reasoning; week 4, case presentation. Sequential simulation was utilized to best replicate clinical practice, following simulated patients from pre-admission/injury, through to admission, deterioration, rehabilitation and long-term management. This approach enabled learners to experience a full patient journey, unachievable through standard placement timelines. Simulation using a mixed approach to facilitation and PEARLS debrief, handover tasks, multi-disciplinary team meetings, discharge planning and smaller vignette scenarios to develop specific clinical skills were simulated utilizing actor role players, high-fidelity manikins and peer enhanced e-learning. The placement modelled a CLIP (collaborative learning in practice) delivery, an approach promoted across standard placements by HEE, with students autonomously setting objectives, utilizing across level learning, recording of daily learning logs, reflections and peer assessments. Pre- and post-placement data have been gathered exploring the students' experiences, expectations, and attitudes towards simulated placement, competence and confidence in both communication and clinical skills using focus group interviews and questionnaires.

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TINT: TRAINING IN TRAUMA SIMULATION PROGRAMME

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Background: Major trauma is one of the leading contributors to death for several age groups globally making it a public

health concern. There are approximately 20,000 cases of major trauma per year in England and over 25% of these result in deaths [1]. In an urban trauma unit, since January 2021 there have been 94 major trauma calls with 17 (18.0%) transferred to a major trauma centre. Human factors such as effective communication, leadership, teamwork, situational awareness and understanding of systems are crucial in the assessment and management of trauma patients.

Aim: This Emergency Medicine (EM) course was designed for Specialty and Associate Specialist Grade (SASG) doctors to develop leadership skills and to demonstrate technical and non-technical skills as a trauma team leader (TTL) when assessing severely injured patients. This course has a strong focus on the understanding of hospital systems and processes for the timely assessment and treatment of complex trauma patients.

Method/design: After a successful HEE funding bid, a simulation training course was devised to cover the main principles of trauma management and the non-technical skills required to manage a trauma patient and help up-skill the 14 SASG doctors at an urban trauma unit. Five scenarios were designed based on real patients seen in urban trauma units in London. On designing the scenarios, an understanding of the functioning of hospital systems such as requesting and administering blood products and transferring patients both within the hospital and within the trauma network, were crucial learning objectives.

Implementation outline: This course was delivered weekly from January to June 2021. Sessions involved the EM SASG doctor, two EM nurses and the members of the wider MDT expected at each trauma call, to recreate the resuscitation room environment. Each SASG doctor underwent all five trauma simulation scenarios individually as the TTL. Each scenario was followed by a focussed debrief by two EM consultants, with discussion around human factors, technical and academic aspects of trauma management. All 14 SASG doctors completed the five trauma scenarios. As a result of this training, there has been an improvement in the management of patients with higher injury severity scores in the ED based on both clinical supervision and feedback from the candidates. Given the impact on practice that this training has had, this course will be delivered to the wider trauma teams within the trust, with the EM SASG doctors continuing as TTLs.

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UPSTREAM IMMERSION: PREPARING ALLIED HEALTH STUDENTS WITH FOUNDATIONAL PLACEMENT SKILLS THROUGH A MULTI-DISCIPLINARY SIMULATION WEEK

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Background: The COVID-19 pandemic has led to an increased demand for clinical placements for Allied Health Professional (AHP) students. Consequently, we have needed to be creative to explore other ways to ensure students complete their 1,000 hours of clinical experience across the programme. A potential option is

to use simulation to replace a portion of clinical hours. Evidence confirms that up to 25% of authentic physical practice with standardized simulated patients results in comparable student competency as assessed by an educator and that a 1-week period of simulation is effective in building students' confidence before continuing with a placement in the clinical setting [1,2].

Aim: Our aim was to design, develop, implement and evaluate a multi-disciplinary simulation programme to prepare students with foundational placement skills. We sought to therefore reduce the burden on NHS staff. We also sought to determine the effect of the programme on student readiness for placement, student confidence, investigate stakeholder perceptions of the programme and determine the suitability of simulation in contributing to clinical hours.

Method/design: Simulation-based educational (SBE) pedagogy and principles guided the programme design and included: pre-brief, simulation with regular time outs to enable rehearsal of an activity and debriefing for reflection. We employed actor role players to act as the patient, relative or carer and clinical educators to guide the students as they would on a traditional placement. We developed three generic patient case studies designed specifically to focus on the development of the key programme learning outcomes: developing patient-centred communication skills and professional behaviours. We adopted a mixed-methods approach in our research design, collecting quantitative data from student self-report pre-post questionnaires, clinical educator questionnaires and qualitative data from focus groups to address our research questions and aims.

Implementation outline: A total of 29 Allied Health Professional students (from physiotherapy, occupational therapy and podiatry) completed a 5-day intensive simulation programme. The programme included an inter-professional 'fishbowl simulation' followed by 3 days of profession-specific clinical scenarios with profession-specific learning outcomes ending on the final day in six simulated multi-disciplinary team meetings. The sessions were interactive with simulated patients and their relative/carers giving authentic patient feedback from a patient perspective. We observed rich transformational learning observing students improve their communication skills and becoming more patient-centred in their approach. Preliminary student feedback indicates that they found the simulation programme challenging but extremely rewarding. Formal data analysis is continuing.

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THE IMPLEMENTATION OF SIMULATED PLACEMENTS IN UNDERGRADATE HEALTHCARE COURSES DURING THE COVID-19 PANDEMIC

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Background: In 2020 many healthcare students lost placement hours due to COVID-19. In response to this crisis, simulated placements were implemented to ensure students