allowing the trainees to experience decision-making/team management skills in an encouraging environment. Studies have shown that simulation-based medical education can improve both clinical knowledge, but also increase awareness of the importance of human factors in managing a medical emergency [1]. Studies from other regions have highlighted the importance of continuing education in paediatrics in the form of Registrar Ready days comparing trainee satisfaction pre- and post-COVID-19 [2].

Methods: Previous Registrar Ready days had been uncoordinated, meaning trainees' experiences were different depending on where they attended. We wanted to ensure that no matter where the course was delivered, and who the faculty were, the trainees would have an equitable experience. The previous and prospective trainees were surveyed to ensure that we delivered scenarios that were relevant to their level and of topics that were interesting and based on real-life situations. As part of the process, the simulations were re-written with sufficient information, so that the days could be run even without the organisers.

Findings: Feedback from the 10 'registrar-ready' paediatric trainees and the faculty from the course was excellent. Self-ratings for trainee confidence relating to different situations showed an improvement following the day. Trainees commented on a very supportive atmosphere, useful scenarios, and detailed feedback discussion as being the best aspects of the course.

Conclusion: Standardising the simulation day has meant that paediatric trainees in our region have an equitable experience when attending the course. The new scenarios are relevant to trainees and have proven to improve their confidence when they must take responsibility for different scenarios. We aim to re-assess confidence once they have stepped-up to being a Registrar to ensure that the learning is still relevant.

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PERCEPTIONS OF ADVANCED NURSE PRACTITIONERS PERFORMING AND TEACHING DIAGNOSTIC LUMBAR PUNCTURE: 'ISN'T LUMBAR PUNCTURE A DOCTOR'S JOB?'

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Background: The role of the Advanced Nurse Practitioner (ANP) within Scotland continues to expand and with the introduction of the transforming roles programme [1], this expansion is expected to continue exponentially. Within the USA it is commonplace for ANP to perform diagnostic lumbar punctures (DLP) however, this is a new development within the UK. Simulation-Based Mastery Learning (SBML) supports skill acquisition [2] and so within a Scottish District General hospital, a core group of ANPs took part in a SBML programme to perform DLPs. This programme was adapted and delivered by an ANP across all grades of Doctors. While literature exists around the role of the ANP and perceptions of the role in facilitating learning, there is little evidence exploring the role of ANPs as a facilitator of advanced clinical skills, traditionally taught by medical staff. Therefore, this study aimed to explore nursing and medical staff's perceptions of ANPS performing and teaching DLPs.

Methods: This study utilised an exploratory qualitative approach to conduct semi-structured interviews with eight participants (medical staff n=4, nursing staff n=4), within Acute Medical Services. Ethical approval was granted by an approved Further Education Institution, School of Health and Life Sciences Ethics Committee. Data was analysed using thematic analysis as described by Braun and Clarke [3].

Findings: Three themes were developed through the thematic analysis. The themes were: improve the patient journey, ANPs integration and support within the multidisciplinary team, and ANPs as expert practitioners performing and teaching skills. The participants discussed a perceived reduction in patient anxiety leading to an increase in patient satisfaction. Participants discussed feeling that ANPs bridged the gap between nursing and medical staff which enhanced team working. All participants felt ANPs were best placed to perform DLP as ANPs had greater availability facilitating timely procedures for the patient. All participants discussed a potential for deskilling of medical staff. However, the medical staff participants felt that their skill acquisition could be enhanced by having access to an expert practitioner who can deliver mastery teaching and learning.

Conclusion: This study suggests that ANPs have expertise to perform and teach clinical skills using a mastery skills programme. Further research should explore the benefits of using ANPs to deliver mastery skills to enhance skill acquisition across all professions. In addition, research to explore the patients' perspective would be beneficial.

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REDUCING RESTRICTIVE PRACTICES: USING SIMULATION EDUCATION TO TACKLE MENTAL HEALTH STIGMA

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Background: The mortality gap experienced by individuals with severe mental illness (SMI) remains high, with SMI patients having a life expectancy of 10–20 years lower than the general population, suggesting that these patients are benefiting less from advances in healthcare [1]. The past decade has seen an increased focus on policy and guidance to reduce restrictive interventions in mental health settings [2]. A large teaching hospital in South London identified a need to improve the care of patients with mental health needs in the acute Trust. This study presents the findings of

a simulation-based training focused on reducing restrictive practices in acute settings with the aim of improving skills and knowledge in caring for mental health patients.

Methods: The simulation courses were interprofessional and delivered online over 2 days. Day one involved didactic teaching around common mental health presentations, de-escalation skills, the public health approach to reducing restrictive practices when working with mental health patients in the Acute Trust, legal frameworks, referral pathways, and personal wellbeing. Day two comprised of 4–5 scenarios covering a range of common mental health presentations in the acute Trust, including Delirium/agitation/psychosis; Emotionally Unstable Personality Disorder, Angry Relative scenario, Hypoxia and craving meds/cigarettes, Bipolar. The simulations involved specially trained actors as simulated patients to ensure consistency and to allow for improvisation in their responses to participants. Actors represented the diverse communities of South London, and Equality, Diversity, and Inclusion was considered from the development stages discussed in debriefings. Participants (n=65) completed a pre- and post-course questionnaire measuring their confidence in course specific skills and human factors skills, as well as collecting qualitative feedback on their experience of the course and intention to apply the learning.

Results: Participants (n=65) showed a statistically significant difference between their pre- (M=90.40, SD=19.96) and post- (M=100.03, SD=21.01) course human factors scores, $t(64)=5.06$, $p<.001$, CI[0.359, 0.891], with a moderate effect size of $d=0.63$. There was also a statistically significant difference between their pre- (M=33.11, SD=6.18) and post- (M=38.83, SD=4.59) course specific skills scores, $t(64)=8.78$, $p<.001$, CI[0.778, 1.393], with a large effect size of $d=1.09$.

Conclusion: The course was effective at improving participants' self-efficacy in working with mental health patients. Improving knowledge, skills, and confidence across disciplines and professions in Acute Trusts will enhance the quality of care that mental health patients from diverse backgrounds receive when requiring hospital care.

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THE EMERGING ROLE OF 3D PRINTING IN AIRWAY TRAINING: A NARRATIVE REVIEW

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Background: 3D printing allows for the rapid production of novel 3 dimensional (3D) models. Its use, both for medical [1] and non-medical purposes, has seen exponential growth in recent years. Including the 3D printing of airways as part of the preassessment process [2]. Within medical education it has already been used for a variety of purposes [3]. Here we explore how it is being used for simulation-based training in airway management and how its use could be further developed.

Methods: Pubmed was searched using the terms; 3 dimensional (or 3D) and printing and airway or anaesthesia/ anaesthetic and teaching (or training or education). Papers were excluded if their focus was not on airway training, if they were not written in English or did not contain original research. The themes of model creation process and their role for teaching was reviewed.

Results: 20 results were returned. However, 13 did not focus on airway management, leaving only 7 results. Models design was created via, de novo design, from pre-existing electronic 3D renders or from cross sectional imaging and then using a computer processing to extract a 3D render which is then optimised before being printed. These cross-sectional images came from either patient specific datasets or from open-source image libraries. Of the papers reviewed the majority were regarding designs for front of neck airway trainers with other uses being for bronchoscopy as well as one paper that was looking at recreating patient specific pathology both for preoperative simulation but also helps in discussions with patients.

Conclusion: These methods provide an interesting opportunity for training. The ease of creating one off components with 3D printing, allowing for the creation of a variety of pathology, seems to be poorly exploited. Instead, most of the work so far has been on 3D printing 'normal' airways. There is a significant technical skill required to convert patient anatomy into specific models, which slows adoption of such techniques. Work will also need to be done to assess if these models have greater educational value compared to more traditional models, especially when considering patient specific models for use for pre-procedure practice.

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PREPARATION FOR ST4 (SKILLS AND DRILLS IN EMERGENCY MEDICINE)

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Background: A hybrid course was designed utilising areas of the Specific Learning Objectives (SLOs) within the new Royal College of Emergency Medicine (RCEM) curriculum launched in August 2021 [1]. Emergency Medicine (EM) trainees must develop a wide range of clinical knowledge, practical skills, as well as critical thinking and rapid decision-making ability to assess, resuscitate, and manage critically ill and injured patients. The low occurrence of these situations within the clinical arena results in significant challenges with regards to providing experience and training.

Methods: The new RCEM curriculum was reviewed with a focus on SLO 6 (Proficiently deliver key procedural skills in Emergency Medicine) and SLO 7 (Deal with complex or challenging situations in the workplace), and a one-day ST4 course was developed. Half of the course featured interactive presentations and hands-on procedural workshops with