Safe delivery of care is central to our life in Emergency Medicine in the Royal Victoria Hospital (RVH ED), Belfast. ‘SIM-PLE’ (SIMulation & Patient-Led-Education) was founded aiming to deliver safer care to patients via multi-disciplinary simulation. Complications can occur with patient care resulting in Serious Adverse Incidents (SAIs). A questionnaire for ED registrars, revealed 80% had been involved in SAIs in their career, however only 10% knew how to access SAI learning messages. A discussion with the ED lead nurse revealed several SAIs concerning RVH ED were reflected in the RCEM Top 10 Significant Incident Reports so we used this document as a framework for SIM-PLE.

Our aim was to identify weak links in patient care, run multi-disciplinary simulations based on real-life cases and disseminate learning messages to reach more staff than via previous methods.

Simulation scenarios closely reflected reality, all patient personal information remained confidential. Prior to simulations, participants completed a pre-scenario questionnaire evaluating confidence levels with managing similar cases. Once the scenario was completed, the team relocated to a non-clinical area for debriefing. This provided valuable information for producing learning messages for dissemination. Finally, the team completed post-scenario questionnaires assessing confidence levels now they had completed the simulation.

We knew 10% of ED registrars had been accessing learning messages via emails, meaning many reports remained unread in inboxes. We transformed the take-home learning messages from simulations into aide-memoire posters using mnemonics to help recall salient learning points, which we believed were more user-friendly than previous emails. We employed social media as a mode of disseminating learning posters, joining the RVH Acute Care Safety and Learning Facebook secure group, which includes 124 staff members. After each simulation we uploaded posters and scenario descriptions, allowing staff instant access to valuable learning messages. SIM-PLE posters were received positively by staff, with enthusiasm for further learning.

In addition to SAI cases, we simulated cases with interesting learning points encountered in the ED during 2017/18. We invited other teams to take part in our sessions, including paediatrics, anaesthetics, CAU staff and obstetrics. Inter-specialty relationships have been affected positively, with teams from three hospitals in BHSCT attending the ED for inter-specialty simulation. To date, we have had in excess of 100 staff and students attending SIM-PLE simulations.

Statistically, SIM-PLE has improved staff confidence levels from 45% to 90% when dealing with these cases. SIM-PLE has directly impacted patient care occurred recently in the ED.

### Short Communications

#### Tuesday 5th November, 11.15–12.35

**SC1**

**PAEDIATRIC IN-SITU SIMULATION: A METHOD OF BUILDING MULTIPROFESSIONAL EXPERIENCE AND TEAMWORK**

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**Background**

Alarmingly, nearly 30% of paediatric inpatients can be harmed during their hospital stay.

Recently, the demand for paediatric services has increased. Combine this with reduced training hours for trainees, less exposure to patients and rotating hospitals every 6 months, it can be challenging to develop relationships within teams before emergency situations arise.

Simulation-based education provides a useful tool to support learning within paediatrics. In-situ simulation teaching is a low cost, using the regular team in their own environment with their normal set up and equipment.

By establishing an in-situ paediatric simulation programme, we aimed to promote team learning but also enable these multidisciplinary relationships to form early.

**Summary of programme**

We delivered a low fidelity fortnightly ward-based simulation within our department replicating common scenarios that the team may face in real life. Scenarios are based on the Royal College of Paediatric and Child Health (RCPCH) Progress curriculum. Beforehand the team receives a brief, with debriefing following the scenario to facilitate learning.

All staff acted as their current role and includes any members of the paediatric ward team including doctors, nurses, healthcare assistants, medical/nursing students, and consultants. Feedback is obtained using a combination of free text questions and Likert scales.

**Summary of results**

The feedback has been extremely positive with the whole team finding the in-situ training worthwhile for their learning. We have delivered 16 in-situ simulations so far to 153 participants. 85% of candidates have reported an improvement in their confidence following the scenario with average confidence increasing from 2.57 to 3.68/5 post teaching. 54% of candidates comment never seeing the scenario in real life before the session.

Feedback comments have shown an improvement in the team’s knowledge and management of paediatric problems. It has facilitated quicker integration of trainees into our department, with better communication and working relationships with the ward staff as well as an understanding of each other’s roles. Organisational and equipment have also been highlighted and acted upon.

**Discussion, conclusions, recommendations**

In-situ simulation has been a hugely beneficial training method for our staff to gain confidence in a wide variety of acute paediatric situations. Interprofessional working and education is also promoted. Latent safety threats may be elicited and changed, improving patient safety.
By maintaining our in-situ simulation programme we hope to continue enhancing interprofessional learning and training within our department. In situ simulation can be easily setup by other teams to obtain similar rewards.

REFERENCES


INCORPORATING VIRTUAL REALITY SIMULATIONS INTO UNDERGRADUATE NURSING CURRICULUM

Molly Schleicher*. Oxford Medical Simulation, London, UK

There are many factors plaguing nursing programs at this time. Clinical sites can be difficult to find or manage; clinical instructors may be difficult to attain, train or retain; large class sizes become cumbersome for clinical faculty and simulation centers; the simulation centers are expensive to create, complete, and control. The research supports the value of simulation in clinical practice, but the resources are not always readily available: enter Virtual Reality (VR).

In a time where nurse educator shortages are affecting nursing programs, new technology can be used to fill the gaps, providing a holistic and effective educational experience to aspiring nurses. VR can be used to simulate patient care, allowing students to practice interviewing, communication, assessment, observation and intervention skills in a controlled and safe environment (Tilton, Tiffany, & Hoglund, 2015; Chia, 2013). Using VR as a supplement to traditional simulation-based education can ‘enhance student motivation and engagement and create a more effective learning experience’ (Chia 2013, p.21). VR can be designed with relevant reference materials supporting the student’s continued education and likelihood to use resources in the professional or clinical setting (Chia, 2013). Because VR was originally created as a gaming platform (Hebda & Czar, 2012) it is a commonly accepted amongst the current generation of learners. Now, it is regularly thought of as an educational resource (Medical Futurist, 2018) but the question remains: what is the best way to incorporate it into an existing nursing curriculum?

There are many options which include using VR simulation scenarios in place of or along side existing live simulation scenarios or clinical experiences. VR can also used during or after lectures about the corresponding topic. Structured and graded VR scenarios can be used in training, remediation, as an exit exam, as a formative or summative evaluation, as a scenario or clinical experiences. VR can also used during or after lectures about the corresponding topic. Structured and graded VR scenarios can be used in training, remediation, as an exit exam, as a formative or summative evaluation, as a make-up simulation or clinical option and as a guide for faculty or program improvement.

The purpose of this short communication presentation will be to discuss the different ways in which VR can be incorporated into a nursing curriculum.

REFERENCES


THE USE OF CHECKLISTS IN SIMULATED SCENARIOS TO SUPPORT SAFE MANAGEMENT OF ACUTE ILLNESS IN PRIMARY CARE

Heather Higham, Anne Maloney, Petronelle Eastwick Field, Jo Lawrence, Paul Greig, Miss Rosie Warren. University of Oxford, Oxford, UK; Eastfield House Surgery, Newbury, UK; Royal Berkshire NHS Foundation Trust, Reading, UK; Brighton and Sussex Medical School, Brighton, UK

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Background Evidence suggests that GPs are managing more acutely unwell patients in their practices. The RCGP curriculum for the care of acutely ill people includes:

- Recognising the signs of illness that require urgent intervention
- Acting calmly in emergency situations and following agreed protocols
- Working effectively in teams

Simulation based education (SBE) and the use of checklists in healthcare has been shown to improve outcomes in secondary care settings. It is reasonable to predict that teams in General Practice would benefit from similar training using realistic scenarios, supported by checklists created for primary care.

Summary of project Phase 1: We designed a training programme for GP settings using three simulated scenarios of recognised emergencies: acute coronary syndrome (ACS); paediatric anaphylaxis and newborn bronchiolitis. The training was delivered in ten practices initially and feedback was collected.

Checklists to accompany the training were devised using a modified Delphi technique with an expert panel comprising GP multidisciplinary teams; consultants in emergency and respiratory medicine, anaesthetics and paediatric intensive care. The process was supported by observations made during the in-situ training and the template for checklists from the quick reference handbook (QRH) developed by the Association of Anaesthetists of Great Britain and Ireland (AAGBI - https://www.aagbi.org/safety/qrh/pdf-version-qrh ).

Phase 2: Training in the use of the checklists has begun for the next group of 12 practices and a comparison between the training in phase 1 and phase 2 will be made using quantitative and qualitative methods.

Summary of results 172 multidisciplinary staff were trained in 20 practices from October 2018 to May 2019.

The process of developing the checklists was complete after six iterations over three months for three topics: ACS; anaphylaxis and bronchiolitis. The checklist for anaphylaxis is shown in figure 1.

Course feedback:

- 100% of practices reported treating a medical emergency in the past year
- 60% of practices reported a wait >20 mins for an ambulance called to an acutely unwell patient
- 100% of participants thought checklists were helpful and comments from the training have informed additional modifications.
- Free text comments from participants uniformly placed high value on the simulation training

Discussion Our results so far support the use of SBE and checklists as a useful tool to support the delivery of safe care...