Introducing In Situ Simulation to improve teams communication through Human Factors

AUTHORS

Giammarco Ceppi - Project Manager
Aurora Sebastiani - Tesam Member
Mark Wheeler - Team Member

The below data are the result of a year of dedication and hard work of our Simulation Team but vital has been the outstanding support of Yathumie Sivakanthan, Kavyesh Vivek, and Catarina Paula De Carvalho (5th Year medical students that volunteered to help with the data analysis)

AFFILIATIONS

We're also proud of the support in providing the funding to start the project from CW+ charity.

• **Syon 2 Ward**

01. Introduction

Lack of communication, specially between different teams, and the delay in recognise and properly escalate deteriorating patients, has been identified as the main contributory factors for incidents (from moderate to severe) within the trust.
The project aimed to introduce In Situ Simulation training to allows teams to test their effectiveness in a controlled environment and address technical and non-technical issues, focusing on human factors (HF) and crisis resource management (CRM).

02. Objectives

- Design and deliver high-fidelity ISSs trust-wide whilst assessing the feasibility of the training in an NHS Trust.
- Improving the delay in recognising and escalating deteriorating patients and effective communication between different teams

References

Simulation and Team Communication; Louise Levitt [13-14 July 2023], Isleworth, UK: Patricia Bowen Library & Knowledge Service.

03. Methodology

- Using a Plan-Do-Study-Act (PDSA) methodology, five wards and in-patient areas were selected for bi-monthly ISS for six months.
- Simulations were carried out using portable REALITi360 by iSimulate in varied locations.
- A pre-brief was given to the first respondent, with a staggered entrance/escalation to mimic real-life scenarios of a deteriorating patient.
- ISS lasted 30 minutes, with a 10-minute scenario and a 20-minute debrief immediately after. Participants were asked to complete a pre and post-ISS feedback form.

04. Results/Findings

61 sessions were delivered across the two hospital sites in the Trust, with a total of 175 attendances- staff were allowed to participate more than once in an ISS. There was a wide range of attendance, from Nursing Students to Consultants. An improvement in all self-reported domains was recorded. 98.8% of attendees felt more confident about escalating a deteriorating patient, with 87.3% reporting a greater awareness of HF used in such situations. 87.1% of attendees found the ISS useful, and 94.2% would recommend the ISS to colleagues.

05. Analysis

Attendance by Job Role in In Situ Simulation sessions

6	Cardiologist	74	RNs
2	Anaesthetist	4	Ward Managers
6	FY1	1	PDNs
6	Other	24	Scrub Nurses
20	tot Doctors	*103*	tot Nurses
9	Student Nurses	24	HCAs
1	Medical Student	4	Nurse Associates
1	Student paramedic	7	Radiographers
1	Student ODP	3	ODPs
2	ANA	*38*	tot Allied HP
14	tot Students	*175*	tot attendees

Attendance by Job Role from our courses feedback

	Simulation Facility			
	Doctors / MS	Nurses / SN	NA / ANA	HCA
Undergraduate	101	7	2	0
Postgraduate	24	0	0	0

period Aug - Nov 2023
period Sept - Nov 2023

Sessions delivered overview

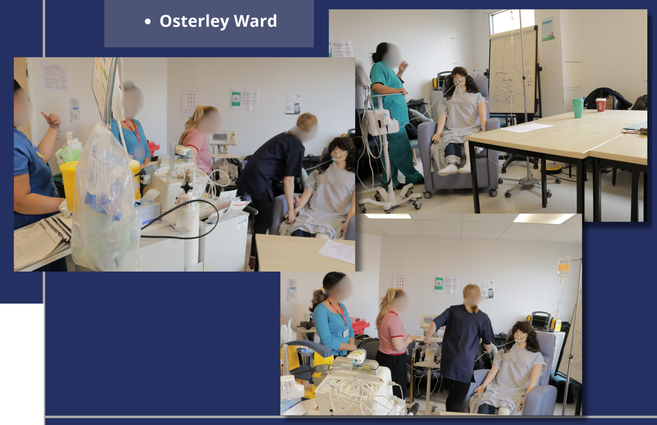
Month	Days	Sessions	WMUH	CWH
May	7	10	10	0
June	6	10	9	1
July	4	9	9	0
August	7	9	4	5
September	7	13	8	5
October	8	10	9	1
Tot	*39*	*61*	*49*	*12*

Chelsea and Westminster Hospital
NHS Foundation Trust

05. Key Points

- ISS can be feasible in NHS Trusts to improve non-technical skills.
- The dynamic nature of ISS facilitates inter-disciplinary participation, which better mimics real-life scenarios.
- This research project provides a stepping stone for further research into the use of ISS in addressing and training staff on HF and CRM within the NHS.

• **Osterley Ward**



06. Conclusion

In conclusion, while the study provides valuable insights into the potential benefits of high-fidelity simulations for medical training within the UK NHS, several important considerations emerge regarding the generalisability, robustness, and sustainability of implementing ISS in NHS Trusts. Addressing these considerations through further research, stakeholder engagement, and objective evaluation methods is crucial for maximising the efficacy and impact of high-fidelity simulations in improving patient care and enhancing the training of healthcare professionals within the NHS and beyond.