

scenarios. Post satisfaction surveys demonstrated 100% of SHO participants reported more confidence in the management of the emergencies. The endocrine consultants agreed that the scenarios covered 3 of the most important endocrine emergencies and had a role to play in educating trainees. However they were uncertain if it could replace traditional summative assessments of competency.

Discussion and conclusion Identifying learner's needs is important in designing simulation interventions and leads to a high level of satisfaction. Observations by consultants recognise the role of SBE in trainee competency development but its use for assessment requires more investigation.

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IMPACT OF A HIGH-FIDELITY SIMULATION COURSE FOCUSING ON LEADERSHIP SKILLS – THE CLINICAL EMERGENCY LEADERSHIP (CEL) COURSE

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Introduction Leadership has been shown to be key for improvement in real¹ and simulated clinical emergencies.^{2 3} Data from our SPRinT in situ simulation programme over 10 years showed lack of improvement in leadership scores despite improvements in other areas.⁴ We hypothesised that a newly designed one-day simulation-based Clinical Emergency Leadership (CEL) course could improve leadership skills and confidence in attendees.

Methods A focused, practical one-day leadership course was developed and delivered by interprofessional trained facilitators. It consisted of interactive Crisis Resource Management teaching, emphasising expert clinical leadership qualities based on literature and expert opinions. This was followed by 2 streams of high-fidelity simulation training scenarios, with one participant acting as team-leader each time. Each participant was able to act as team-leader at least once during the course. Structured debrief after each scenario using advocacy & inquiry questions provided immediate formative feedback to learners, emphasising leadership and followership skills.

Results [Figure 1] The course has been run twice. 25 participants attended (16 doctors, 9 nurses). Course evaluations explored participants' leadership skills before and after the

course, including 8 performance questions using a 0–100% level of confidence scale, based on the Kilpatrick model of learning. Analysis shows highly significant improvement in all scores ($p < 0.001$). Participants felt the training was enjoyable, engaging and relevant, with mean overall course rating 92%.

Discussion Our new CEL course has successfully improved all participant's confidence in all areas of leadership skills. The increase in confidence is statistically highly significant and is matched by the high enjoyment levels of the course. Since the course's implementation, further qualitative feedback has been obtained informally. One participant (a Deputy Sister) was recently present at an out-of-hospital respiratory arrest. She stated 'the leadership course really helped to change my whole perspective about arrest situations and give me the confidence to react when alone with no equipment and no immediate help.' As far as the authors are aware, the CEL course is the only one in the UK specifically designed to deliver hands-on simulation-based clinical leadership training.

Conclusion Our newly designed Clinical Emergencies Leadership (CEL) course is unique in focusing on leadership skills during emergencies, proven to be highly relevant in resuscitation events. It has been highly successful in improving confidence of participants in all leadership scores. Further research is planned to evaluate the effect of the course on observed leadership skills based on validated scores, and to establish its long term effects.

REFERENCES

- Cooper S, Wakelam A. Leadership of resuscitation teams: 'Lighthouse Leadership'. *Resuscitation*. 1999 Sep;**42**(1):27–45. PubMed PMID: 10524729.(Real resus videos analysed of leadership, LBDQ developed)
- Hunziker S, Bühlmann C, Tschan F, Balestra G, Legeret C, Schumacher C, Semmer NK, Hunziker P, Marsch S. Brief leadership instructions improve cardiopulmonary resuscitation in a high-fidelity simulation: a randomized controlled trial. *Crit Care Med*. 2010 Apr;**38**(4):1086–91. doi: 10.1097/CCM.0b013e3181cf7383. Erratum in: *Crit Care Med*. 2010 Jun;**38**(6):1510. PubMed PMID: 20124886. (Medstudents better CPR with brief leadership instruction in sim)
- Hunziker S, Tschan F, Semmer NK, Zobrist R, Spychiger M, Breuer M, Hunziker PR, Marsch SC. Hands-on time during cardiopulmonary resuscitation is affected by the process of teambuilding: a prospective randomised simulator-based trial. *BMC Emerg Med*. 2009 Feb 14;**9**:3. doi: 10.1186/1471-227X-9-3. PubMed PMID: 19216796; PubMed Central PMCID: PMC2656452. (Simulation prospective randomized 2 groups either team formed before, or adhoc at time of sim. Better performance leadership and overall in pre formed teams)
- MacGloin H, Lofton L, Sanz D, *et al* 7. The impact of in-situ simulation training on individual and team performance during real cardiopulmonary resuscitations on a paediatric intensive care unit (picu) *BMJ Simulation and Technology Enhanced Learning* 2016;**2**:A17-A18.

Question	Level of confidence (Pre) average % (95% CI)	Level of confidence (Post) average % (95% CI)	P Value
Non-technical skills (crisis resource management) overall	50.9 (42.7 – 59.1)	77.2 (72.5 – 81.9)	p<0.001
Announcing yourself as a leader in emergencies situations	49.0 (37.6 – 60.4)	77.2 (70.8 – 83.6)	p<0.001
Sharing your mental model	49.5 (40.3 – 58.7)	80.4 (75.9 – 84.9)	p<0.001
Maintaining situational awareness	57.8 (50.0 – 65.6)	78.6 (73.0 – 84.2)	p<0.001
Appropriately allocating roles	61.4(54.4 – 68.4)	82.1 (77.6 – 86.7)	p<0.001
Using of closed loop communication	58.5 (51.3 -65.8)	82.7 (79.0 – 86.4)	p<0.001
Empowering the team to speak out	60.0 (53.9 – 66.1)	84.8 (80.5 – 89.1)	p<0.001
Using resources appropriately	61.5 (55.0 – 68.0)	81.7 (77.3 – 86.2)	p<0.001

Abstract 029 Figure 1