

Investing in the team: Use of realistic case scenarios to facilitate intra-professional team learning.

Dr Kathryn Watson¹, Mr Nicholas Gosling², Mr Christopher Broom², Mr Huon Snelgrove², Dr Joyce Popoola²
¹Queen Alexandra Hospital, Portsmouth Hospitals NHS Trust, , United Kingdom, ²St George's University Hospitals NHS Foundation Trust, London, United Kingdom

Background: To enable effective learning, individuals' need psychological safety. Learning in the workplace is advantageous as it provides context, highlights relevance to clinical practice and involves the multi-professional clinical team. However, providing learning opportunities in the clinical workplace is becoming increasingly challenging with shift-pattern working and medical/multidisciplinary team (MDT) staff shortages. Here we present two-year data from a simulation course designed to facilitate practical learning that mimics clinical encounters and strengthens collaborative relationships amongst MDT members.

Methods: A full-day renal case scenario and patient communication simulation course for renal SpRs in their first two years of training and renal nurse specialists was held in November 2018 and December 2019. A panel of MDT nephrology experts and medical educationalists peer-reviewed the course. Participants received pre-course reading, and scenarios were sandwiched by a pre-scenario team discussion and a post-scenario guided debrief. The "PARROTS" (Promote reflection, Align feedback, Retrieve peer input, Reveal standards, Outline gaps, Turn up strategies and Summarise) and "Diamond" debrief models (1) were used. Peer-to-peer learning occurred in the scenarios, through "round-table" guided discussions and practical demonstrations of haemodialysis and peritoneal dialysis by specialist nurses. A high faculty:learner ratio(1:2) enabled provision of guided personal reflection and mentorship throughout the day. The course was evaluated with pre and post-course questionnaires which included assessment of knowledge across different domains of renal medicine, confidence managing scenarios and free text boxes to ascertain what about the course facilitated learning. A further questionnaire was sent to the first cohort a year after participation to assess whether the course had any impact on their individual practice. Statistical significance was tested by a non-parametric paired t-test, the Wilcoxon signed rank test.

Results: A total of 19 learners; 11 renal SpRs and 8 specialist renal nurses attended; with 6 MDT renal specialist faculty and 3 educationalists present on each course. Learners completed pre and post-matched questionnaires, 95% overall response rate. Quantitative analysis demonstrated increased knowledge following the course across all domains, including acute kidney injury, transplantation, haemodialysis and peritoneal dialysis, mean knowledge score increased significantly 56% to 72% ($p < 0.05$). Improved confidence in managing each scenario was reported post course, mean score increased significantly from 56.90% to 71.18% ($p < 0.005$). Qualitative analysis highlighted "intra-disciplinary interaction", "reflection" and "practical skills" as the greatest enablers of learning.

The one year follow-up questionnaire was completed by four SpRs, response rate (67%), in 17 out of 20 domains (85%) they reported the simulation led to a direct improvement in their clinical practice. All reported that it was a useful addition to the training programme, with three out of four SpRs feeling it could help towards preparation for a consultant role.

Conclusion: This renal intra-professional simulation course improved knowledge and confidence in managing complex scenarios and patient communication across the MDT, and has been reported by SpRs to have helped improve their clinical practice. The opportunity to learn from peers and faculty across the MDT through reflection and discussion of personal clinical experiences was deemed the most valuable enabler of learning.

