P274 DELIBERATE PRACTICE MAKES PERFECT: REGULAR 30 MIN LOW-FI SIMULATION-BASED RESUSCITATION PRACTICE IMPROVES NCHD CONFIDENCE, TECHNICAL AND NON-TECHNICAL SKILLS IN PAEDIATRIC EMERGENCIES

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Introduction Simulation is a method of teaching and continuing education that is particularly well suited to fields that experience infrequent but high-stakes events, of which paediatric medicine is an excellent example. In this study, we created a simulation-based multidisciplinary continuing education intervention and measured its effect on paediatric NCHD’s perceived performance in the areas of technical and non-technical skills as well as confidence, self-efficacy and participant satisfaction.

Aims & objectives The aim of the project was to determine if frequent practice of paediatric emergency situations with low-fi mannequins and a tablet based ‘monitor’ improves staff knowledge, technical and nontechnical skills as well as confidence and self-efficacy.

Methodology The intervention took the form of weekly planned 30 min teaching sessions that rotated between the Paediatric ward, Emergency Department, and Maternity ward. The format of these teaching sessions was immersive simulation in the form of APLS or NRP moulages using simple plastic mannequins and a tablet monitor controlled by the examiner’s phone.

The effects of the intervention were measured using a pre- and post-intervention questionnaires assessing paediatric NCHD’s perceived performance in the areas of technical skills (e.g. intubation) and non-technical skills (e.g. situational awareness) as well as confidence and self-efficacy. The questionnaires also addressed attitudes to simulation in general and this intervention in particular (i.e. participant satisfaction). Pre-intervention n=5, post-intervention n=10; scores were compared using Wilcoxin Signed-Ranks.

Results There was no difference between pre and post intervention attitudes to the importance of knowledge, technical and non-technical skills, and the opportunity for practice however these were all very highly rated prior to the intervention. No significant difference was found between pre and post intervention self-rated confidence, technical, nontechnical skills, nor was there a difference in self-rated performance in the most recent resuscitation performed. 100% of participants either agreed or strongly agreed that the intervention improved their clinical knowledge, situation awareness, team working, communication and confidence. 89% of participants either agreed or strongly agreed that the intervention improved their technical and nontechnical skills, decision making and leadership. The most frequently occurring negative feedback in 89% of participants was that they would have liked more frequent simulation sessions.

Conclusion It is likely the small sample size and reliance on non-parametric tests contributed to the lack of significant results. The intervention was highly popular with participants who described a subjective improvement in clinical knowledge, confidence, situational awareness and technical and non-technical skills following the simulation sessions.