

could perceive themselves as confident and competent but still perform incorrectly. Fast track SBEs should not be used to confirm full competence due to the inability to provide repetition of skills practice.

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## LEARNING FROM COVID-19 AND SUPPORTING STAFF USING HUMAN FACTORS AND SIMULATION

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**Background:** The full impact of working in the COVID-19 pandemic surge on NHS staff is yet to be understood. Simulations were run to explore the staff experience following the second COVID surge. From these, it was clear that the staff had powerful stories to tell. A series of further simulation sessions were then delivered, designed to allow staff to explore their experiences and assist with organizational learning within the trust debrief strategy.

**Aims:** Firstly, to use simulation to recreate working with uncertainty and unfamiliar staff as a platform within the debrief to explore their experiences of working during the pandemic surges. Secondly, to employ a human factors framework, SEIPS model <sup>[1]</sup>, within a simulation debrief to build a system picture of work-as-done <sup>[2]</sup> by staff throughout the organization. This was then used to feed back to leadership to influence care processes and staff and patient well-being for potential future surges.

**Method:** Simulation sessions, open to all staff, were advertised throughout the organization. In total, 8 sessions were delivered for 38 staff. Multi-disciplinary attendance was encouraged, and a wide range of staff groups participated. During the session, staff were given a brief presentation on human factors, a simulation pre-brief and a pre- and post-simulation questionnaire. A simple patient deterioration scenario unrelated to COVID-19 was used to maintain psychological safety. A system-focussed debrief using the PEARLS model took place after the scenario. Insights shared by candidates were captured by a facilitator and anonymously grouped into the six SEIPS themes.

**Results:** Pre- and post-questionnaires show a general theme of improved confidence post-simulation. Findings were reviewed and the impact on care processes and staff, patient and organizational outcomes were summarized. Information captured within the SEIPS framework showed recurring themes that were condensed into four main categories: psychological trauma and burnout, communication, re-deployment and training, and infection control and PPE.

**Implications for practice:** It was clear from facilitating sessions that staff were concerned about patient experience but were also suffering their own trauma from working through the surge. Feedback from participants was positive, emphasizing their sense of validation in sharing their experiences and of feeling part of the hospital community. Staff also had experiences to share about what had helped them and where things could be improved. These insights were synthesized into practical recommendations for managing future pandemic surges that were fed back to the wider organization.

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## NO TIME TO TRAIN? THE USE OF SIMULATION TO DEVELOP A PATHWAY AND DELIVER TRAINING FOR EMERGENCY SURGERY IN MATERNITY DURING THE COVID-19 PANDEMIC

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**Background:** The COVID-19 pandemic presented healthcare workers with a challenge to provide safe clinical care while protecting staff and coping with an evolving situation. The use of simulation to devise and test emergency pathways is well recognized in the literature <sup>[1]</sup>. However, this pandemic presented the world with a very tight timeline to deliver, let alone test potential pathways. This was further complicated in maternity units where workload remained the same during the preparatory phase.

**Aim:** Recognizing the need to develop a safe pathway, with a limited evidence base, we sought to test the hypothesis that a combination of table-top and *in situ* simulation could be used to devise a protocol and train teams in a tertiary maternity unit during the first phase of the pandemic.

**Methods:** This programme involved three phases: pathway development, safety testing and team training. The initial phase was a simulated table-top scenario of a parturient requiring a Category 1 Caesarean delivery under general anaesthetic. This pathway was then used to create a structured simulation scenario to test its suitability. The debrief sessions for each explored three themes: (1) pathway feasibility; (2) timing and (3) feedback.

**Results:** The table-top simulation took place on 11 March. Team-specific outcomes highlighted the logistics of early senior escalation and the rationalization of staff and equipment in theatre. We also recognized deficits in the amount and correct use of personal protective equipment (PPE). Staffing levels and limitations in communication were also key findings. The subsequent *in situ* simulation took place 2 days later. The baby was delivered within the 30-min guideline (28 min) and overall, the pathway was safe to use. It was then modified and used to train teams over the subsequent weeks, reaching 151 staff. Feedback from candidates was powerful: 'I feel safer coming to work'.

**Implications for practice:** The initial phases of the COVID-19 pandemic provided a fertile ground for team consolidation and planning that promoted collaboration in one of the most multi-professional areas of any hospital: the maternity unit. Involvement of all teams meant that deficits in training could be identified early, and changes could be adapted rapidly. The simulations also demonstrated to staff that it was possible to safely deliver a baby within the timeframe. Recognizing that this was not an isolated problem, we shared our resources publicly helping teams in the USA, Laos, Australia and UK to develop their own protocols. Importantly, it improved our response to the second wave.

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### SIMULATION INTEGRATING DELIBERATE PRACTICE METHOD FOR DEVELOPING ASSESSORS OF COMPETENCE

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**Background:** In response to COVID-19, our organization expanded the critical care beds capacity; however, the number of critical care nurses was insufficient to meet expansion demands. Therefore, non-critical care nurses were deployed to COVID-19 critical care units. The deployed nurses lacked experience and training in critical care. To ensure patient safety, the nurses were assigned to assessors who evaluated their fitness to practice after receiving upskilling training through simulation-based education (SBE). However, due to the massive expansion and rapid deployment process, there was a shortage of competency assessors, highlighting an urgent need to use SBE to develop more assessors. We developed additional competency assessors through simulation embedding deliberate practice and rigorous assessment. Deliberate practice in simulation is described as progressive learning, which includes repetitive performance and rigorous assessment<sup>[1]</sup>.

**Aim:** The aim of the study was to explore the effectiveness of simulation embedding deliberate practice in developing nurse competency assessors.

**Method:** Eleven assessor candidates were asked to perform competency assessments under simulated conditions. During the simulation, simulated participant (SP) roles were assigned as a bedside nurse and patient relative; the patient was a high-fidelity patient simulator. The assessor candidates were asked to perform a competency assessment of the bedside nurse who should perform the required critical care skills on the patient in the presence of the patient's relative. The candidates used a valid observation rubric to complete the assessment. Using deliberate practice strategies, after each competency assessment, a debriefing session was conducted in which the SPs provided constructive feedback on the assessor's performance. The assessor repeated the competency assessment under the same simulation conditions and attended debriefing sessions until they mastered the competency assessment process. Post simulation evaluation collected data to evaluate the candidates' perception of the training.

**Results:** Eleven nurses completed the simulation developmental programme and were assessed as competent to become assessors. The questionnaire findings revealed that all nurses perceived themselves as competent assessors; however, 90% reported the need for frequent exposure to the competency assessment process over time, in the clinical setting, to enhance their competence and confidence levels.

**Implications for practice:** The hybrid simulation modality of SP and patient simulator embedding deliberate practice method was deemed to be an effective fast track method to develop competency assessors. However, practice of competency assessment in real clinical settings is essential to confirm competence.

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### PERCEPTIONS OF VIRTUAL SIMULATIONS BY INTER-PROFESSIONAL SIMULATION FACILITATORS

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**Background:** The COVID-19 pandemic has necessitated pedagogical change with many events virtual or hybrid in nature. Simulation events are particularly affected due to their hands-on quality. In addition, requirement for virtual facilitators may be increased compared with in-person counterparts. Virtual simulation education must be as high quality as in-person efforts and facilitator training is key. Some principles of virtual facilitation differ from in-person, for example, in relation to debriefing<sup>[1]</sup>. Effective education should be tailored to address these differences.

**Aim:** The aim of the study was to deliver virtual facilitator education addressing the format, objectives, expectations and strategies for virtual IP simulations.

**Method:** The traditional in-person Facilitator Training and Inter-professional Education (IPE) Event Training Design course our university-affiliated program delivers was adapted based on a local needs assessment to the virtual Facilitating Virtual Simulations Crash Course. This was delivered as required as small-group Zoom-based teaching, outlining educational theory, practice and principles of virtual simulation facilitation.

**Results:** Sixteen virtual inter-professional simulations have been delivered for students in 19 professions within our Office of IPE since September 2020 with 33 inter-professional facilitators from 4 institutions. To determine the efficacy of our novel virtual facilitation, training facilitators were surveyed. The majority had facilitated one to five simulations (in-person 58%, virtual 70%). In addition to the Office of IPE training, 30% of facilitators had received external education on in-person simulation facilitation compared with 6% for virtual facilitation. The majority of facilitators strongly agreed/agreed that they were as effective a facilitator in virtual simulations (80%), as confident facilitating virtually (70%), as psychologically safe in virtual debriefings (75%), and that virtual simulations will continue in their practice after the pandemic (100%). Most (95%) facilitators strongly agreed/agreed that students were as engaged with virtual simulations as with in-person and 80% felt virtual simulations were a good learning experience for students. The majority (88%) of facilitators strongly agreed/agreed that the virtual crash course provided the knowledge and practice to help them effectively facilitate virtually, and 75% strongly agreed/agreed that the crash course made them appreciate and foster IP relationships in their daily work. These results are comparable to evaluation of in-person training delivered before the pandemic.

**Implications for practice:** Virtual simulation events require specific facilitation strategies, and virtual education is useful to improve the knowledge and confidence of facilitators. Facilitators value the virtual simulation experience for