

## REFERENCE

1. Barry Issenberg S, Mcgaghie WC, Petrusa ER, Lee Gordon D, Scalese RJ. Features and uses of high-fidelity medical simulations that lead to effective learning: a BEME systematic review. *Med Teacher*. 2005;27(1):10–28.

78

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

Emad Almomani<sup>1</sup>, Jacqueline Sullivan<sup>1</sup>, Jesveena Mathias<sup>1</sup>; <sup>1</sup>*Hamad Medical Corporation, Doha, Qatar*

10.54531/UVOG6797

**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.

## REFERENCE

1. Johnson CE, Kimble LP, Gunby SS, Davis AH. Using deliberate practice and simulation for psychomotor skill competency acquisition and retention: a mixed-methods study. *Nurse Educator*. 2020;45(3):150–154. Doi: [10.1097/NNE.0000000000000713](https://doi.org/10.1097/NNE.0000000000000713)

109

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

Karen Dickinson<sup>1</sup>, Wendy L. Ward<sup>1</sup>, Kathryn Neill<sup>1</sup>; <sup>1</sup>*University of Arkansas for Medical Sciences, USA*

10.54531/SQSY6763

**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

themselves and their students, and they believe that this will be an important pedagogy post-pandemic.

## REFERENCE

1. Cheng A, Kolbe M, Grant V. A practical guide to virtual debriefings: communities of inquiry perspective. *Adv Simul.* 2020;5:18. <https://doi.org/10.1186/s41077-020-00141-1>

72

## MEDICAL STUDENT ATTITUDES TOWARDS POINT-OF-CARE ULTRASOUND IN UNDERGRADUATE MEDICAL EDUCATION

John Karp<sup>1</sup>, Miroslav Voborsky<sup>1</sup>, Christopher Woodward<sup>1</sup>, Cian McDermott<sup>2</sup>, Rebecca Kírrane<sup>1</sup>, Rachel Gilmore<sup>3</sup>, Claire Condron<sup>1</sup>; <sup>1</sup>Royal College of Surgeons in Ireland, Dublin 2, Ireland<sup>2</sup>The Mater Misericordiae University Hospital, Dublin 7, Ireland<sup>3</sup>Connolly Hospital Blanchardstown, Dublin 15, Ireland

10.54531/RYJX3157

**Background:** Point-of-care ultrasound (PoCUS) is a bedside imaging modality that provides the operator with instant clinical patient information. PoCUS is a low-cost, radiation-free, portable diagnostic tool that is utilized in many specialities <sup>[1]</sup>. To the best of our knowledge, no Irish medical schools have a formalized ultrasound curriculum in place for undergraduate students. Hands-on ultrasound teaching has the potential to enhance medical students' basic understanding of human anatomy and confidence in diagnostic ability <sup>[2]</sup>.

**Aim:** The aim of the study was to assess undergraduate medical students' attitudes towards PoCUS through the implementation of a rudimentary proctored PoCUS workshop.

**Methodology:** Third-year medical students at the Royal College of Surgeons in Ireland participated in a 1-hour PoCUS workshop as part of their fundamental clinical skills training. Medical students attended the in-person workshop repeated over 8 weeks. Students were exposed to three ultrasound stations. The first was a CAE Vimedix ultrasound simulator utilizing augmented reality colourization and 3D modelling. The second station was learning and performing an extended FAST scan with a focus on bright mode image acquisition and free fluid recognition. The third station was the practical placement of peripheral/central IV-line insertion helping students to identify vasculature while also manipulating the ultrasound transducer as a procedural adjunct. Students were asked to complete a post-workshop survey to investigate their attitudes towards ultrasound teaching in undergraduate medical education. The survey consisted of 10 questions to assess attendee's prior ultrasound knowledge, to provide constructive feedback regarding the workshop and how ultrasound can be incorporated into future undergraduate medical education.

**Results:** A total of 121 students completed the post-workshop survey. Of those who completed the survey, 94.2% of students had never used an ultrasound machine before and 100% had never performed PoCUS previously. Collectively, participants strongly agreed 100% that PoCUS should be incorporated into the undergraduate medical student curriculum at RCSI. In particular, 89.3% and 45.5% of students indicated that POTUS should be included in the third- and fourth-year medicine curriculum, respectively. 85.1% of students indicated that PoCUS education would be most valuable to supplement clinical placement followed by anatomy (62.8%), pathology (59.9%) and physiology (23.1%). 86.8% of the students were interested in learning more about PoCUS through an online format.

**Implications for practice:** PoCUS appears to be an additional valuable learning resource for undergraduate medical students. Of the students surveyed, it is apparent that there is strong support in favour of early ultrasound integration into the future medical school curriculum.

## REFERENCES

1. Karp J, Burke K, Daubaras S, McDermott C. The role of PoCUS in the assessment of COVID-19 patients. *J Ultrasound.* 2021. doi: 10.1007/s40477-021-00586-8.z
2. Campos M, Donaldson C, Rajeswaran G, Ahmad I. The role of ultrasound teaching in the undergraduate medical curriculum. *Clin Teacher.* 2018;16(5):539-540.

102

## HAUNTED HOUSE: THE DANGERS AND GHOSTS OF THE LIVED ENVIRONMENT

Kathryn Neill<sup>1</sup>, Duston Morris<sup>2</sup>, Debbie Knight<sup>3</sup>, Pamela de Gravelles<sup>1</sup>, Angel Holland<sup>1</sup>, Wendy Ward<sup>1</sup>, Karen Dickinson<sup>1</sup>; <sup>1</sup>University of Arkansas for Medical Sciences, Little Rock and Fayetteville, USA<sup>2</sup>University of Central Arkansas, Conway, USA<sup>3</sup>Harding University, Searcy, USA

10.54531/KOGI8266

**Background:** Accurate assessment of potential hazards and challenges within a home environment is essential to ensure the safety of our patients both post-discharge from hospital and within the community. Inter-professional education in this area allows students to learn from, with and about each other to provide more effective patient care. COVID-19 challenged the Arkansas Interprofessional Education Consortium (ARIPEC) to develop meaningful inter-professional activities while minimizing COVID-19 risk <sup>[1]</sup>.

**Aim:** The aim of the study was to create and deliver a novel virtual home assessment simulation for inter-professional learners to improve the performance of home assessments state-wide.

**Method:** Faculty from three universities created rooms within a simulated home assessment environment illustrating patient characteristics, hazards, habits and interpersonal considerations. Each university created and video recorded one simulated room (kitchen, bedroom and living room) which were combined in one video to represent a home. Students received pre-course material including education on the INHOMES tool and learning objectives before the virtual learning event. The brief included education on the importance of home assessment and the INHOMES tool. The simulated home video was played to all students who subsequently were split into break-out rooms with facilitators. In inter-professional groups, students created action plans for immediate needs and for when weight-bearing status allowed increased mobility and identified professionals required to meet needs. Following this debriefs occurred in break-out rooms and then as a large group to summarize and identify take-aways. All students completed a pre-/post-questionnaire including the Interprofessional Collaborative Competency Attainment Survey (ICCAS) and evaluation of simulation methodology, home assessment and overall impression. Mean scores for 5-point Likert scores are reported.

**Results:** In total, 400 students participated in the 2021 event, including medical, pharmacy, physician assistant, dental hygiene, communication science disorders, physical and occupational therapy, addiction studies, respiratory care, radiography, public health, sonography and nursing. All ICCAS metrics increased pre- to post-evaluation. See Table 1.