

Fulfilling An Urgent Need For Pronation Education Using Simulation

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Introduction

Critically ill patients with COVID-19 have a high likelihood of developing Acute Respiratory Distress Syndrome (ARDS) and requiring adjunctive therapies such as pronation position ventilation (PPV).

Prior to the COVID-19 pandemic, only certain units were educated on PPV. This created a gap in knowledge. Simulation was utilized as an education modality to address this gap.

Interprofessional simulation-based training can improve provider comfort with PPV (1). In an effort to prepare caregivers to care for COVID-19 patients, additional PPV education was quickly assembled.

Objective

Prepare caregivers to safely and effectively implement PPV for patients in ARDS due to COVID-19 using simulation.

Materials & Methods

Pronation education was provided using multimodal instructional strategies.

Participants attended a 3 hour class.

1 hour didactic:

- Video based learning
- Discussion
- Question and answer

2 hours simulation:

Simulation 1: High Fidelity Manikin Moulaged with: endotracheal tube, ventilator, arterial line, peripheral IV, triple lumen internal jugular central line with multiple continuous infusions, urinary catheter, ECG leads, pulse oximeter

Simulation 2: Standardized Patient No moulage: after proning the SP provided feedback on positioning and comfort

Class size was limited to 20 participants in order to maintain social distancing and group sizes ≤10.

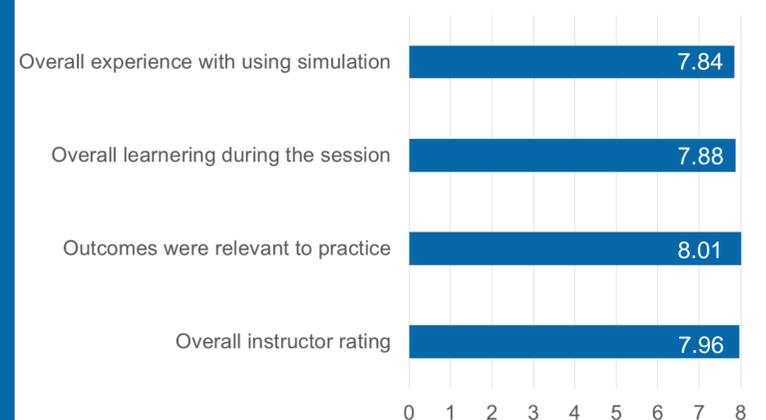
Participants included Registered Nurses, Licensed Independent Practitioners, Physicians, and Respiratory Therapists.

Additional education was provided with in-situ, low-fidelity simulation.

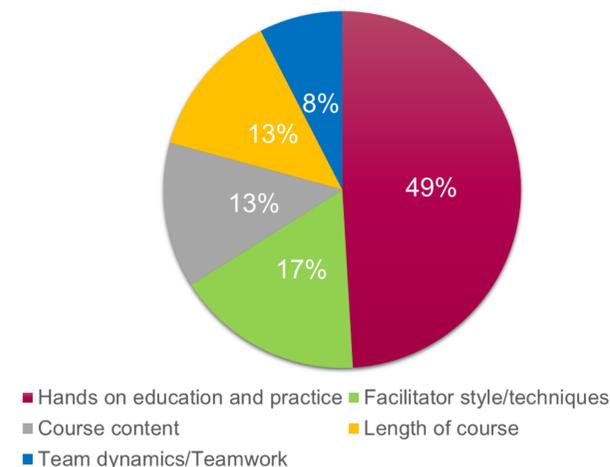
Results

Learners completed an evaluation immediately post simulation and debrief.

Evaluation Data



Learner Comments



Conclusion

Simulation proved to be an effective modality for interprofessional pronation training.

7 pronation classes were initially scheduled in 2020. An additional 9 classes were added from February-April 2020. In total, 16 pronation classes were held in 2020.

173 caregivers attend the pronation course, and an additional 299 caregivers were educated with supplemental in-situ pronation simulation.

472 caregivers total participated in pronation simulation between the 2 modalities.

References

1. Poor, AD, Acquah, SO, Wells, CM, Sevillano, MV, Strother, CG, Oldenburg, GG, Hsieh, SJ. Implementing Automated Prone Ventilation for Acute Respiratory Distress Syndrome via Simulation-Based Training. American Journal of Critical Care 2020;29(3):e52-e59. doi:<https://doi.org/10.4037/ajcc2020992>