Feasibility of Simulation in Orientation - *A Pilot Study*

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Background:
Military nurses transfer to new facilities and complete orientation every three or four years. Clinical skill proficiency is validated by direct observation during orientation. Performance in simulated patient scenarios could decrease orientation time. The purpose of this study was to determine the feasibility of high-fidelity simulation use in critical care unit orientation of newly assigned nursing personnel.

Methods:
A descriptive pilot study was conducted with registered nurses recruited from a military treatment facility (n = 7). Three critical care nurses and the PI created three scenarios and evaluation tools for use in the study.

Results:
Inter-rater reliability for the evaluation tool was excellent (Cronbach’s alpha = 0.95). A split in the overall mean scores was identified between participants with and without critical care experience.

Conclusion:
Simulation scenarios to evaluate new nurses are feasible in the military treatment facility; however, preparation and evaluation of the scenarios is personnel- and time-intensive. Although not statistically significant, the split in overall mean scores may indicate a method to determine proficiency in critical care nursing.

Implications:
Replication of this study with a larger, more diverse sample is recommended to further validate the evaluation tool and these findings. Successful results can be transferred to other departure-masts within the medical center and to performance validation prior to deployment.

Scenario 1:
William Jones is a 66-yo male being admitted for COPD exacerbation. He has a 3-day history of fever, progressive cough, and SOB. He becomes increasingly SOB during assessment. Participant should recognize respiratory distress, administer nebulized bronchodilator and reassess patient.

Scenario 2:
Mr. Smith is a direct admission from the medicine clinic. He was extremely SOB with a productive cough. He complains of chest pain and SOB. Participant should recognize hemodynamic changes of heart failure, assist with endotracheal intubation, and recognize a right mainstem bronchial intubation.

Scenario 3:
Mrs. S. Wilson, a 59 year-old female, is being admitted for 24 hours observations and hemodynamic monitoring postoperatively following a laparoscopic right partial nephrectomy for an angiomyolipoma (benign renal cell tumor). Her BP drops to 80/53. Participant should recognize signs of an occult hemorrhage, notify the physician, implement MD orders, and transfer patient back to the OR.

Acknowledgements:
Capt Nicholas P. Reeder, USAF, NC; Capt Teisha St. Rose, USAF, NC; and Capt Nicole Turner, USAF, NC for their assistance as raters in completing this project. This study was approved by the Wright Patterson Medical Center IRB FWP20120021H.