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High-fidelity Simulation with Debriefing: Best Practice Education for Flight Nurses?

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Summary

Flight nurses have a unique job that requires transporting patients while providing critical care expertise including high acuity skills in an uncontrolled environment with limited supplies, workspace, and treatment options. Due to increased availability of air transport, flight nurses commonly care for less acute patients and run the risk of skill fade for high acuity, low volume skills. This project found that the implementation of debriefing after high-fidelity simulation improved time to skill completion and better clinical judgement while completing the skill.

Background

High-fidelity simulation with debriefing has been shown effective in maintaining high-risk, low volume proficiencies in nursing. This evidence-based DNP project's purpose and aim was to reduce flight nursing skill fade and help maintain high acuity skills through high-fidelity simulation with debriefing.

Intervention

This prospective quality improvement study was conducted before and after a debriefing intervention. Participants were flight nurses from HealthNet Aeromedical Services in Charleston, WV who were asked to intubate in a high-fidelity simulation session and participate in debriefing

session to reflect on their performance. They were then tested on 7-month skill retention. Eight subjects completed all stages of the study and were included in the analysis.

Results

The median time to successful intubation pre debriefing was 26.9 seconds ± 11.9 seconds SD, post debriefing was 24.8 seconds ± 5.8 seconds SD. The median checklist score prior to debriefing was 7.9 points ± 0.4 points SD, post debriefing was 9.4 ± 0.7 points SD. After a single high-fidelity simulation session with debriefing, participants showed clinically significant improvement in time to intubation completion and statistically significant improvement in an intubation checklist score.

Implications

The recommendation for the use of high-fidelity simulation with debriefing to train flight nurses is supported by research and congruent with the findings of this project. This project shows that implementing debriefing after simulation sessions can improve flight nursing time to completion of intubation as well as better knowledge of and preparedness for intubation, leading to better flight nursing skill, clinical judgement, and ultimately better patient outcomes.