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Summer 2024

The Benefits of Simulation-Based Training

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Recommended Citation

Taylor, Brooke, "The Benefits of Simulation-Based Training" (2024). *Nurse Residency*. 11.
<https://knowledgeconnection.mainehealth.org/nurseresidency/11>

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The Benefits of Simulation-Based Training

Brooke Taylor, ASN, RN

Background

Due to COVID-19, many hospitals shut down their in-person classes and simulated trainings. This has had a negative impact on the education of our new graduate nurses.

Simulation-based training has been shown to have many benefits to the nursing practice. It offers nurses a safe environment to practice skills and develop critical thinking skills, without the risk of harming a real patient. Simulated-learning also has been shown to increase self-confidence and self efficacy as well as improve patient safety.

Problem

Is simulation-based training more effective in improving clinical skills and maintaining clinical competency of nurses in comparison to online didactic learning?

References

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- Kow, F. F., Chong, M. C., Lai, L. L., Lee, W. L., Chua, W. L., & Liaw, S. Y. (2024). Developing hospital nurses' clinical reasoning abilities in assessing and managing clinical deterioration using a virtual patient simulation: A quasi-experimental study. *Clinical Simulation in Nursing*, 87, 101489. <https://doi.org/10.1016/j.ecns.2023.101489>
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Review of Literature

Title: Developing Hospital Nurses' Clinical Reasoning Abilities in Assessing and Managing Clinical Deterioration Using a Virtual Patient Simulation: A Quasi-Experimental Study
Purpose: To evaluate the effectiveness of using virtual simulations to develop nurses clinical reasoning skills and clinical competence.
Method: Quasi-experimental study including 124 nurses divided into two groups, one group participating in a virtual simulation, the other participating in online didactic learning.
Results: The nurses that participated in the simulation had better knowledge retention and application scores than the nurses that participated in the online didactic learning.
Conclusion: Virtual simulation-based training was shown to be more effective in developing clinical reasoning skills and improving clinical competence in comparison to online didactic learning.
Evidence Level: Level 3

Title: Emergency Department Pediatric Code Cart In Situ Rolling Refresher Training Program
Purpose: To improve upon the skills and ensure competency of emergency room nurses in a rural tertiary-care center in relation to managing pediatric emergencies.
Method: An uncontrolled interventional study with 56 participants participating in a training program that consisted of four scenarios and 17 code cart skills.
Results: The study showed significant improvement in skills related to pediatric emergencies.
Conclusion: Training programs and refresher programs are shown to improve skills and ensure competency.
Evidence Level: Level 3

Title: Effectiveness of In-situ Simulation on Clinical Competence for Nurses: A Systematic Review
Purpose: To evaluate the effectiveness of in-situ simulations in improving clinical skills and maintaining clinical competence in registered nurses.
Method: This study was systematic review including 7 randomized controlled studies evaluating the effects of simulation training on various clinical nursing skills and nursing competence.
Results: The studies reviewed showed improvement in the skills evaluated along with increased confidence, teamwork, and performance.
Conclusion: Studies show that in-situ simulation training is an effective method for improving skills and maintaining clinical competence.
Evidence Level: Level 1

Future Implications

Based on the evidence provided, I would recommend that MCH provides simulation-based trainings for the new graduate nurses in supplementation to their existing curriculum and offer simulation-based learning opportunities for all nursing staff.