



Cracking the Code: Unlocking a Multimodal Approach to Code Blue Education in the NICU



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Objectives

- Identify effective teaching methods to increase learner participation and retention of knowledge
- Understand the benefits of implementing a multimodal educational experience in nursing education
- Describe the process required to create an educational escape room

Introduction

- Neonatal resuscitation education is a required component of a Neonatal Intensive Care Unit (NICU) nurse's annual educational competencies.
- In situ simulations provide meaningful learning opportunities highlighting critical thinking skills within a nurse's clinical setting.
- Educational escape rooms require learners to apply theoretical and practical knowledge while building teamwork.
- The NICU Clinical Education Specialist (CES) and the NICU Clinical Practice Specialist (CPS) collaborated with two NICU clinical nurses to create a multimodal approach to code blue education.

Methods

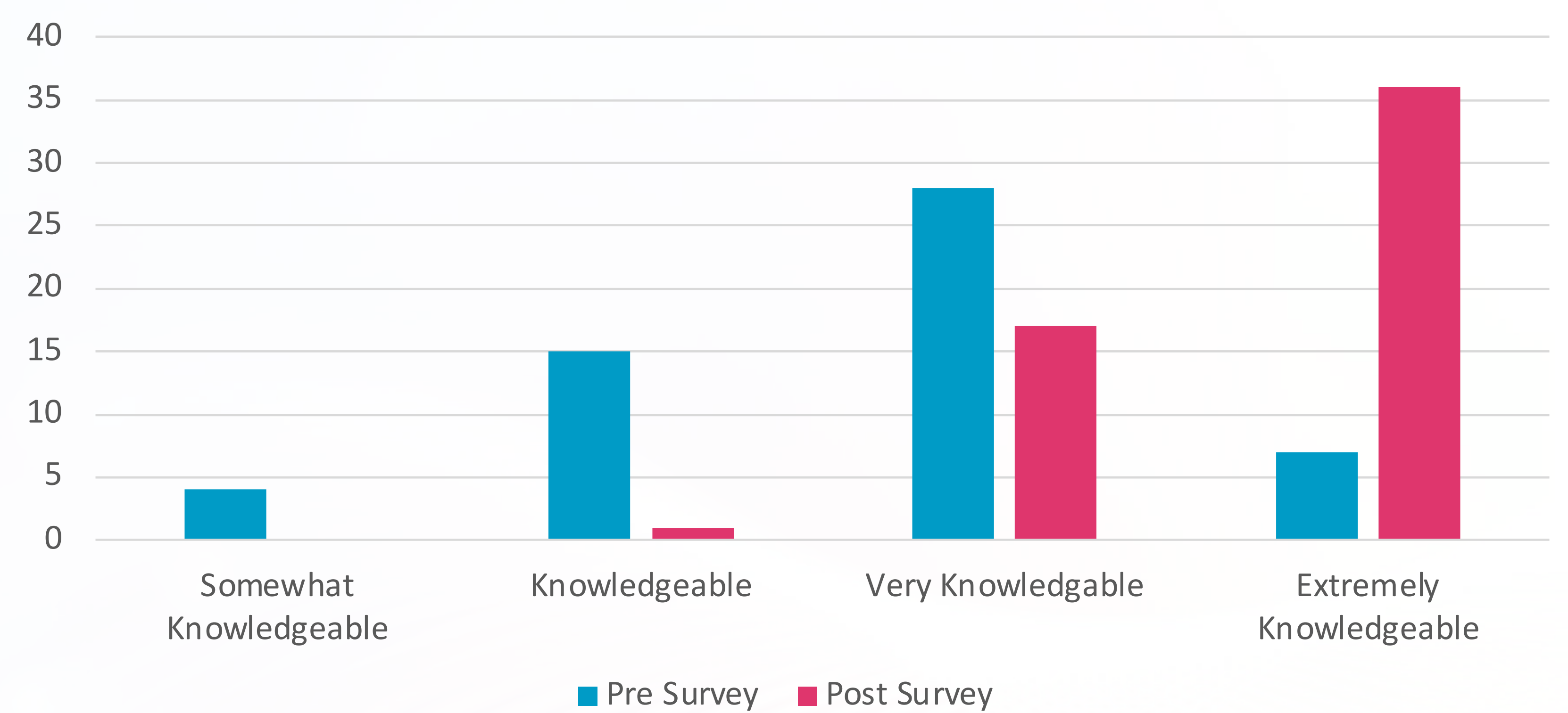
- Key learning points were identified prior to designing the learning experience
- Examples include:
 - Resuscitation medication calculation
 - Independent double verification
 - Code documentation
 - Blood gas interpretation
- A multimodal training focusing on code blue education was designed
- The training consisted of three parts:
 - In situ mock code simulation
 - In-depth debriefing and didactic discussion of code documentation
 - Code blue themed escape room
- Class sizes were limited to create an intimate learning experience and increase learner participation.
- Learners must utilize effective teamwork and communication skills to solve riddles to proceed to the next puzzle in the escape room.
- Learners were asked to complete a pre- and post-training survey to rate their knowledge and efficacy of the learning experience.



Results

- 54 nurses completed the pre and post surveys.
- Over 95% of participants stated the addition of an escape room was effective in reinforcing code blue knowledge.

Participant Self-rating of Code Blue Knowledge Pre and Post Mock Code



Survey Responses

- "I feel more comfortable with the role of documenter after the escape room. Breaking it down and analyzing helped."
- "The escape room was really engaging and fun. I enjoyed it very much and still learned during the process of it all."
- "This was a good review of independent double verification."
- "I love the escape room format. The documentation overview really helped me during this code."
- "I like the escape room, it's different than usual mock codes."



Conclusion

- A multi-modal learning experience facilitates a dynamic learning environment and fosters critical thinking through engaging learning activities.
- Integrating an escape room with in-situ simulation is an extremely effective method of teaching.
- Learners enjoy a multifaceted learning experience compared to traditional learning experiences

References

- Gómez-Urquiza, J. L., Gómez-Salgado, J., Albendín-García, L., Correa-Rodríguez, M., González-Jiménez, E., & Cañadas-De la Fuente, G. A. (2019). The impact on nursing students' opinions and motivation of using a "Nursing Escape Room" as a teaching game: A descriptive study. *Nurse Education Today*, 72, 73-76.
- Morrell, B. L., Eukel, H. N., & Santurri, L. E. (2020). Soft skills and implications for future professional practice: Qualitative findings of a nursing education escape room. *Nurse Education Today*, 93, 104462.
- Rivera, E. K., Siple, L. M., Wicks, E. J., Johnson, H. S., & Skov, C. M. (2020). In Situ Neonatal Mock Codes: Assessing the Impact. *Neonatal Network*, 39(1), 29-34.