Escape Postpartum Hemorrhage: Effects of Gaming in Nursing Education
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Background/Purpose
• As part of a national effort to improve early acknowledgement and intervention to postpartum hemorrhage (PPH), complicated by the fact that graduate nurses are held accountable for a tremendous amount of content and skills, meaningful and interactive teaching techniques are needed.
• Literature review revealed positive implications for gaming in nursing education over traditional methods.
• Compared to traditional lectures, active learning promotes critical thinking, reduces stress, increases engagement and motivation, and provides outcomes.

Purposed Change
• Create an escape game, in the form of a box, that builds on a case study scenario including puzzles, a decoder, a hidden message crossword, and sorting games to unlock new information to “escape” a patient from PPH.
• The activity will mimic a real-world situation and allow students to identify interventions based on information/clues given to advance.
• The active learning tool guides teams of students through recognizing PPH risks, presentation, and best practices in providing the recommended interventions in a timely manner.

Implementation
• “Escape Postpartum Hemorrhage” pilot activity was provided in a classroom setting after the traditional postpartum lecture to hospital nursing residents.
• The activity was then to be implemented with university BSN students to determine how the additional activity affected test scores and retention.

Evaluation
• A pilot study involving 20 hospital nursing residents was conducted to evaluate flow and perception of the hands-on escape box.
• A 4-point Likert scale survey with a comment section evaluated the participants’ perception of learning effectiveness.
• The adapted digital escape game was successfully implemented in April 2020 for 120 BSN students via Zoom in breakout groups of 3 or 4.
• All 120 BSN students completed the game and participated in a post conference debrief. Results revealed 95-100% of participants “strongly agreed” or “agreed” the activity promoted teamwork, reinforced knowledge, prepared for clinical experience, prioritization, and clinical reasoning.
• Students broadly commented they enjoyed it. The university students improved their test score averages over the related content by 4-6% compared to prior semesters with lecture alone.

COVID Strikes
• The game was subsequently adapted to a digital format during COVID restrictions using Google forms and educational game platforms.
• The activity was presented to the 120 BSN students via Zoom breakout rooms.
• Although not in person, the virtual activity still allowed for evaluation of outcomes as indicated in the purpose.

Implications for Nursing Practice
• Responses strongly reinforced use of gaming. The activity was revised following feedback, and an online version was created due to COVID restrictions. The game was implemented again for the summer 2020 cohort with similar results.
• Designing the digital escape version revealed to be more affordable, less labor-intensive, adaptable, and had the advantage of inserting multiple locks or levels to break through but creating both versions enhanced the overall game.

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