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Knowledge acquisition and retention among nurses after an educational intervention on endotracheal cuff pressure
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Abstract

Background: Nurses play a key role in the proper management of endotracheal tube (ETT) cuff pressure, which is important for patients' safety, so it is vital to improve nurses' knowledge on safe cuff management practices. **Aims and objectives:** This study aimed to evaluate the effectiveness of an educational intervention related to ETT cuff pressure management on improving and retaining critical care nurses' knowledge. **Design:** A single group pre-post interventional study was conducted involving 112 registered nurses (RNs) from a 24-bed adult general intensive care unit at a teaching hospital in Malaysia. **Methods:** The educational intervention included a theoretical session on endotracheal cuff pressure management and demonstration plus hands-on practice with the conventional cuff pressure monitoring method. Nurses' knowledge was measured using a self-administered questionnaire pre- and post-intervention. Data were analysed using repeated measure analysis of variance and bivariate analysis. **Results:** In this study, 92% of the total number of RNs in the unit participated. A significant difference in mean knowledge score was noted between the pre- (mean = 8.13; SD = 1.53) and post-intervention phases (3 months [mean = 8.97; SD = 1.57] and 9 months post-intervention [mean = 10.34; SD = 1.08], $P < .001$), indicating significant knowledge acquisition and retention between the phases. Knowledge gained between the pre- and 9 months post-intervention phases significantly differed according to nurses' educational level. **Conclusions:** This study supports existing evidence that ongoing educational interventions are essential to improve nurses' knowledge. However, further exploration is suggested to assess how well this knowledge is translated into clinical practice. **Relevance to clinical practice:** Regular educational programmes with current updates would enhance nurses' knowledge through proper practice and clinical decision-making skills; this, in turn, would help to standardize cuff management practices. © 2021 British Association of Critical Care Nurses

Author Keywords

cuff pressure management; cuff pressure monitoring; educational intervention; endotracheal tube; intensive care nurses; nurses' knowledge

Index Keywords

adult, clinical competence, human, intensive care, intensive care unit, nurse, questionnaire; Adult, Clinical Competence, Critical Care, Humans, Intensive Care Units, Nurses, Surveys and Questionnaires

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