

# Effectiveness of the Airway Management and Ventilation Training Program in Thai Undergraduate Nursing Students

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**Background:** Airway management and ventilation are principal and crucial skills for nurses for saving life of critical patients in emergency situation. Therefore, preparedness of emergency nursing skills for airway management and ventilation for undergraduate nursing students is required to improve knowledge, self-efficacy, and clinical performance in airway management and ventilation in order to be proficient nurses after graduation and better patients' outcomes.

**Objective:** To determine the effectiveness of the airway management and ventilation training program on knowledge, self-efficacy, and clinical performance of airway management and ventilation.

**Method:** A one group pre-test and post-test design was conducted. Participants were 191 fourth year undergraduate nursing students at university. Percentage, number, means, and Pair sample t-test were used to compare the difference of outcomes. Knowledge of airway management and ventilation was measured using an Airway Management and Ventilation Test. Self-efficacy was measured using an Airway Management and Ventilation Self-Efficacy Questionnaire. Clinical skills of airway management and ventilation were evaluated using Airway Management and Ventilation Performance Check List.

**Results:** The training program can improve both knowledge and self-efficacy in airway management and ventilation. The mean score of correct answer in post-test was significantly higher than those in pre-test ( $t = -9.229$ ,  $df = 190$ ,  $p < .001$ ). The mean score of self-efficacy in post-test was significantly higher than those in pre-test ( $t = -30.285$ ,  $df = 190$ ,  $p < .001$ ). The percentage of good performance (>80%) was 93.2%.

**Conclusion:** The study findings support that the airway management and ventilation training program can improve both knowledge and self-efficacy in undergraduate nursing students. This training program can make students' achievement in airway and breathing management at good performance level. Therefore, this training program should be promoted to enhance nursing students' competence in emergency nursing care and prepare for readiness to work as registered nurses post-graduation.

