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EFFECTIVENESS OF STRUCTURED TEACHING PROGRAM ON KNOWLEDGE AND PRACTICE REGARDING CARE BUNDLE ON PREVENTION OF VENTILATOR-ASSOCIATED PNEUMONIA AMONG NURSES

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Mechanical ventilation is a life-saving procedure, used for critically ill patients who are unable to breath spontaneously. However, patients on mechanical ventilation are susceptible to develop complications i.e. Ventilator-Associated Pneumonia (VAP). Incidence of VAP ranges from 5% to 67%, with the highest rates seen among immuno compromised, surgical, and elderly patients. The estimated risk of developing VAP is 1.5% per day and decreases to less than 0.5% per day after the 14th day of mechanical ventilation. VAP increases the duration of hospitalization by 7 days and thereby the cost of health-care. VAP is classified into early-onset (occurring < 5 days) and late-onset (occurring ≥ 5 days) VAP after intubation.

Ventilator-Associated pneumonia (VAP) is a major cause of morbidity and mortality and is the second most common nosocomial infection among critically ill patients, affecting 6% to 52% and can reach to 76% in some specific hospital settings.

Knowledgeable and skilled nurses are crucial in providing patient care, timely and correct decision minimizes the risks to patients. Several studies have reported the lack of knowledge regarding evidence-based strategies for preventing VAP among nurses. Use of Structured Teaching Program on knowledge and

practice regarding care bundle will help in preventing VAP, thus reducing the rate of morbidity significantly.

Methods :

The present study adopted pre-experimental one group pretest and posttest design to assess the effectiveness of structured teaching program on knowledge and practice regarding care bundle on prevention of Ventilator-Associated Pneumonia among nurses working at Intensive care unit of tertiary care hospital, India. Non-probability convenience sampling technique was used to select the samples. Thirty (30) Nurses working in Intensive care unit, available during the time of data collection and actively willing to participate were Included in the study. Those who didn't give their consent for participation and had already attended formal teaching program on Care Bundle on Prevention of Ventilator-Associated Pneumonia was excluded from this study.

Sample Size :

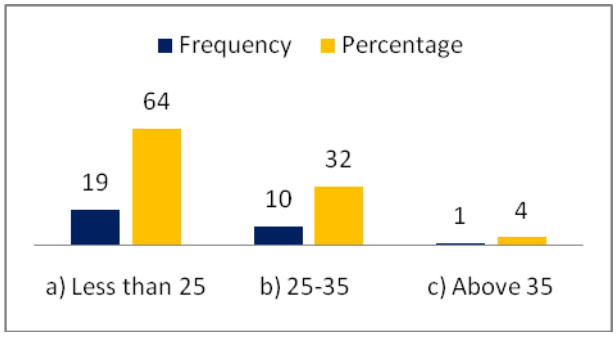
The sample size was calculated through Raosoft (2004), with a 5% margin of error and 95% confidence level from a population size of 40. The calculated sample size was 37. However, data was collected from 30 subjects as they met inclusion and exclusion criteria.

Tool :

The structured knowledge questionnaire consists of 30 multiple choice items from the following area- Causative organism, Route for VAP, Risk factors, Clinical findings, Infection control strategies, complications. Each correct answer scored one mark and the wrong answer zero. The total score was arbitrarily classified as Very good (25-30), Good (19-24), Average (13-18), Poor (7- 12) and Very poor (0-6). The highest score was thirty and the lowest score was zero. Whereas, the Structured observational practice checklist had 20 items to assess nurses' practice regarding the care bundle on prevention of ventilator-associated pneumonia. The practice score was arbitrarily classified as Very good (16-20), Good (11-15), Average (6-10) and Poor (0-5). The highest score was twenty and the lowest score was zero.

Results :

It shows that the majority 19 (64%) of samples were less than 25 years of age. Most 22 (74%) of them were females and had an Educational qualification level of B.Sc. Nursing 12 (40%). Maximum 12 (40%) samples had working experience of less than 1 year and between 1 to 3 years respectively. More than fifty percent of sample reported that they received information regarding care bundles on the prevention of VAP from Induction classes.



It shows that the Majority (57%) of samples, scored between 13-18 in Pre-test. However, in the post test, the majority (57%) of samples scored between 19- 24. Thereby, indicating an improvement in Knowledge score after implementation of a structured teaching program on care bundle regarding VAP. Data also depicts that mean pre-test and post-test Knowledge score was 7.79 and 24.1 respectively. The calculated 't' value was 14.95 that indicates a significant difference between mean pre and post-test knowledge scores. Paired t test applied, p value > 0.05 level is statistically significant, Df (29) = 2.04.

Data revealed no significant association between Knowledge score regarding care bundle on VAP with selected Socio-Demographic Characteristics at 0.05 level of significance.

Data represented in Table shows that there is no significant association between Practice score regarding care bundle on VAP with Selected Socio-Demographic Characteristics at 0.05 level of significance.

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