RESEARCH ARTICLE

A STUDY TO ASSESS THE EFFECTIVENESS OF CONTINUING NURSING EDUCATION PROGRAMME FOR STAFF NURSES REGARDING VENTILATOR BUNDLE CARE ON KNOWLEDGE, KNOWLEDGE ON PRACTICE AND PREVENTING THE OCCURRENCE OF VENTILATOR ASSOCIATED PNEUMONIA AT SMVMCH, PUDUCHERRY

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ABSTRACT

Ventilator-associated pneumonia is a type of lung infection that occurs in people who are on mechanical ventilation breathing machines in hospitals. As such, VAP typically affects critically ill persons that are in an intensive care unit (ICU). The primary objective of the study is to find out the effectiveness of CNE by assessing the knowledge, practice and preventing the occurrence of ventilator associated pneumonia. VAP before and after implementing CNE. The research design is one group pre and post test with convenient sampling technique of 30 staff nurses were selected. The study findings reveals that majority of the staff nurses were having sufficient knowledge, practice and preventing occurrence of VAP was reduced significantly after administering CNE. The CNE was found effective in increased in knowledge and practice on Ventilator Bundle Care among staff nurses.

INTRODUCTION

Continuing education programmes have an important role in staff development. In the nursing profession the most common aims of these programmes are to enable nurses to continue their professional growth, deliver safe and efficient care, appraise clinical practice in an innovative way and identify their own educational needs. Ventilator-associated pneumonia is a type of lung infection that occurs in people who are on mechanical ventilation breathing machines in hospitals. As such, VAP typically affects critically ill persons that are in an intensive care unit (ICU).VAP is a major source of increased illness and death. Persons with VAP have increased lengths of ICU hospitalization and have up to a 20-30% death rate.

Early onset:-Within 96 hours (4 days) of patients admission to the ICU or the patients intubation for mechanical ventilation on, Cite As: 'Incidence of VAP in tertiary care hospital and implication of VAP bundle; Vol. 3|Issue 12|Pg:2520- 2528 2016 2521 DOI:10.18535/ijmsci/v3i12.19 development of pneumonia is early onset. (ii) Late onset:- Pneumonia develops

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after the admission of patient more the 96hours (4days) in the ICU or intubation for mechanical ventilation. (iii) Very early onset:- Pneumonia develops within 48 hours after intubation.

Statement of the problem

A Study to assess the effectiveness of continuing nursing education programme for staff nurses regarding ventilator bundle care on knowledge, knowledge on practice and preventing the occurrence of ventilator associated pneumonia at SMVMCH, Puducherry.

Objectives

- To assess the knowledge among staff nurses regarding ventilator bundle care on preventing occurrence of ventilator associated pneumonia.
- To assess the practice among staff nurses regarding ventilator bundle care on preventing occurrence of ventilator associated pneumonia.
- To evaluate the effectiveness of continuing nursing education programme on ventilator bundle care among staff nurses regarding preventing occurrence of ventilator associated pneumonia.
- To assess the occurrence of ventilator associated pneumonia among patient in under ventilator.

- To determine the co-relation between practice and occurrence of ventilator bundle care among staff nurses
- To determine the co-relation between knowledge & practice regarding ventilator bundle care among staff nurses.
- To associate the pre-test level of knowledge and practice regarding ventilator bundle care among staff nurses with their selected demographic variables.
- To associate the occurrence of ventilator associated pneumonia with their selected clinical variables among clients on ventilator.

Hypothesis

- There will be a significance difference between pre and post-test level of knowledge regarding ventilator bundle care.
- There will be a significance difference between pre and post-test level of practice regarding ventilator bundle care.
- There will be a significance difference in before and after continuing nursing education among staff nurses.
- There will be a significant co-relation between knowledge on practice and occurrence of ventilator associated pneumonia.
- There will be a significance co-relation between knowledge and practice regarding ventilator bundle care.
- There will be a significance association between the pre-test level of knowledge and knowledge on practice regarding ventilator bundle care.
- There will be a significance association between occurrence of ventilator associated pneumonia with their demographic variables of the client on ventilator.
- There will be a significance association between occurrence of ventilator associated pneumonia with their clinical variables of the client on ventilator.

RESEARCH METHODOLOGY

- **Research Approach:** Quantitative approach
- **Research Design:** Pre-Experimental one group pre-test and post-test design
- **Population:** The study population consists of all staff nurses in SMVMC&H
- **Sample:** Who are fulfilling the inclusion criteria.
- **Sampling Technique:** Purposive sampling technique by lottery method
- **Sample Size:** 312 samples

Variables

- **Independent Variables:** Continuing education programme
- **Dependent Variables:** Knowledge & practice of staff nurse, Occurrence of VAP among client under mechanical ventilator.
- **Extraneous Variables:** In-service education, Distance education, Attended or any training programme.

Inclusion Criteria

- Diploma and graduate nurses who are working in SMVMCH and are willing to participate in the study .

- Diploma and graduate nurses who used to work in intensive care unit but are currently working in general ward.
- Staff nurses who are working in SMVMCH hospital.
- Who are available during data collection.
- Both male & female nurse.
- Who are all on mechanical ventilation for more than 48 hours at SMVMCH.

Exclusion Criteria

- Staff nurses who are working as administration level, ANM and Nursing assistant.
- Clients who were death after 48 hours
- Patients who are long-term or chronically ventilated.

Data Collection Procedure

- Assess the health status on client with mechanical ventilator for a period of one year Oct 2014- Sep 2015
- Pretest conducted 312 staff nurses knowledge by using of questionnaire
- Intervention (continuing nursing education programme) 33 Nos IN EACH BATCH totally 10 sessions (5months) monthly 2 sessions taken.
- 7th day post test conducted knowledge by using of questionnaires, practice assessed by re demonstration
- 3 month once reinforcement CNE while staff nurses posted on rotation in critical care units.
- Assess the episodes of VAP for 1year duration May 2016- April 2017

TOOLS

Section-A: Consisted of three questions general information about anatomy & physiology of lungs

Section-B: Consists of six questions regarding ventilator setting.

Section-C: Consists of six questions information about ventilator associated pneumonia , causative organism , clinical pulmonary infection score, duration emerging ventilator associated pneumonia.

Section-D: Consists of thirteen questions regarding ventilator bundle care) It includes
- Elevation of the head of the bed (HOB)
- Daily sedation vacations and assessment of readiness to extubate
- Peptic ulcer disease prophylaxis
- Deep vein thrombosis (DVT) prophylaxis
- Daily oral care with chlorhexidin
- Sub clotting pressure maintaing.

Findings of the Study

Regarding knowledge in pre-test 24 (8%) of them had poor knowledge, 174 (58%) of them had average knowledge, 83 (27.7%) of them had good knowledge, 19 (6.3%) of them had Excellent knowledge. in post-test 5 (1.7%) of them had average knowledge, 120 (40%) of them had good knowledge, 134 (44.7%) of them had very good knowledge, 41 (13.7%) of them had excellent knowledge. Regarding practice in pre-test 69 (23%) of them had poor practice, 166 (55.3%) of them had average practice, 65 (21.7%) of them had good practice. in

post-test 117 (39%) of them had poor practice, 95 (31.7%) of them had average practice, 88 (29.3%) of them had good practice.

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