

PROJECT ON

CARE OF PATIENT ON MECHANICAL VENTILATOR

(NURSING RESEARCH PROPOSAL)

HNH 514 Advanced Theory and Practice in Nursing Education II

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Project Title

Enhancing student nurse' s performance in caring patients on ventilator using appropriate teaching methodologies, strategies and learning concepts.

Project Description/Overview

This project is an individual type learning project where the main objective is learning to teach the nursing students(based on the nursing syllabus) how to take care of the patients on mechanical ventilator.

On grant of permission from the required stakeholders in the clinical setting, teaching session will be provided to the nursing students, following which pretest (using multiple choice questionnaires) will be assigned to them for pre-evaluation of the knowledge regarding mechanically ventilated patients.

Using various aids for teaching and assessing the learning requirements of the nursing students, different methods of teaching will be demonstrated.

Evaluation of the teaching methods and learning outcomes will be based on the post test results, using same set of questionnaires and its comparison with results of pre-test.

Also, checklist will be prepared for evaluation of demonstration of different procedures by nursing students.

Project rationale

Respiratory failure develops when any of the systems like pulmonary system, central nervous system, cardiovascular system fail to maintain their optimum **functioning**. Acute respiratory failure occurs from several reasons, including pulmonary disease, neuromuscular disease, shock and the need for airway protection or temporary respiratory support after major surgery. If cared inappropriately, prolonged mechanical ventilation risks for complications like ineffective airway clearance, airway obstruction, pulmonary barotrauma, unexpected or accidental extubation, respiratory infections, imbalanced nutrition and anxiety in patients. Effective, efficient and comprehensive nursing care is required for caring patients on mechanical ventilator.

The student nurses are in learning phase. They lack appropriate knowledge and eventually are unable to rationalize, think critically and creatively or use a

problem-solving approach based upon the scenarios in the clinical setting. Besides, they also lack practice and skills to care for the patients on mechanical ventilator (Jamshidi et al ,2016). Thus, provision of ineffective care will aggravate patient's condition, will increase their hospital stay and its complications. This could eventually affect their physical, psychological, social and economic status.

Enhancing the knowledge of student nurses will build up confidence in themselves and gradually aid them to provide effective, structured and well planned nursing care to the patients on mechanical ventilator. This will help in minimizing the complications in the mechanically ventilated patients and pave the way for their speed recovery. The beneficiaries of this project (excluding me) will be, primarily, the patients, their family, caretakers and the nursing students.

Expectations-Professional and Personal

Professional expectations for me from the project are to learn to become a professionally effective nurse educator, knowledgeable of the nursing subject matter, develop leadership qualities, understand various needs of nursing students and ways to solve their problems with respect to learning and education.

On personal level, the expectations for me are to develop personal attributes

like supportive, patience and understanding, tolerant and fair. A well balanced personality is also expected while teaching so that it supplements the teaching to become more meaningful (Parsh, 2010).

Project Goals/Learning outcomes

Aim

Providing holistic care to patients on mechanical ventilator by educating undergraduate student nurses through application of various teaching methods and strategies.

Goals/objectives

The students are able to:

1. Learn and understand the anatomy and physiology of the respiratory system and respiratory failure.
2. Assess the respiratory system through various ways of assessment (e. g. Auscultation).
3. Enlist various risk factors and causes of respiratory failure.
4. Assist for the process of endotracheal intubation.

5. Identify the various modes of mechanical ventilation.
6. Identify various trouble shooting alarms of the mechanical ventilator and causes and their remedies.
7. Able to frame a nursing care plan with nursing diagnosis, outcomes, interventions along with their rationale for the patient on mechanical ventilator.
8. Demonstrate various specific vital procedures like suctioning, weaning from ventilator.
9. Demonstrate various nursing interventions for the care of patient on mechanical ventilation.
10. Enlist the risk associated and complications for the mechanically ventilated patient.

Learning outcomes

Student nurses will be able to assess and care for the patients on mechanical ventilator efficiently.

Description of the project

The nursing curriculum aims to provide opportunities to provide required knowledge, skills and attitude which will aid the nursing student to assume roles and responsibilities to practice nursing independently.

Learning is defined as mental activity by means of which knowledge, skills,

attitudes, appreciations and ideas are acquired, resulting in modification of behavior.

The philosophy of nursing education includes 2 philosophies. They are philosophy of nursing and philosophy of education. Philosophy of nursing is to care for patients comprehensively, while philosophy of education aims to educate the student. Thus, following philosophy of nursing education and curriculum development helps in effective learning of nursing students.

Significance of the project is that the project will mainly focus on the challenges of nursing students to practice care of mechanically ventilated patients in clinical setting.

Teaching will be performed using various methods of teaching. Those methods of teaching are dependent on the objectives and content of the project. For instance, lecture method of teaching will be used during the introduction to the respiratory system. Lecture Demonstration method will be used to show the suctioning procedure while the patient is on mechanical ventilator. Other methods of teaching that will be used in the project are laboratory method which will encompass nursing care plan, clinical conference and their evaluation; group discussions; nursing case study, role play and simulation scenarios (Young D, Seibenhener S, 2018).

Coordination with the charge nurse will be done so as to help in smooth

implementation of project plan.

The type of educational communication media that will be used are graphic aids; still pictures; live cardiac monitors, mechanical ventilator in the clinical setting; articles like suction catheters, endotracheal tubes, laryngoscope and other medical devices used for care of mechanically ventilated patients; original records like arterial blood gas reports, X rays, CT scan (only with stakeholder's permission).

Evaluation

Evaluation is process of judging the educational experience and confirms whether the goals of the project are achieved. For this project, pretest for determining the knowledge of the nursing students will be taken using a set of questionnaires with multiple choice answers. Those answers will be graded and database will be generated. Post the implementation of various methods of teaching, the students will be given again the same set of questionnaires. Data will be generated by grading the answers given by the same set of nursing students for the second set of questionnaires. Both the data sets will be compared using statistical considerations for measuring the outcomes (Science.gov 2017).

Secondly, demonstration by the students will be evaluated using checklist in order to check the skill development of the nursing students.

Anticipated outcomes: The project will provide an insight of the positive change in knowledge and skills in the nursing students with regards to care of patients on mechanical ventilator. This project will also help the nursing educators to understand various methods of teaching and their effectiveness.