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A Study To Assess The Effectiveness Of Video Assisted Teaching Module On Knowledge Regarding Tracheostomy Care Among B.Sc. Nursing Students In Selected Colleges In Kanpur.

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Abstract
Advances and improvements in treatment of critical illness have resulted in more patients who require prolonged airway and airway clearance. Tracheostomy is one of the most common intensive care unit procedures performed. The advantages include patient comfort, safety, ability to communicate, and better oral and airway care. The aim of the study is to evaluate the effectiveness of video assisted teaching module on knowledge regarding tracheostomy care among the B.Sc. Nursing II year students. The researcher assumed that B. Sc nursing students may have inadequate knowledge regarding the Tracheostomy care.The present study is a quantitative study with one group pretest posttest design. 50 B.Sc (N) – II yr students were selected through a simple random sampling technique. Further a self-structured multiple choice questions technique was considered appropriate for assessing knowledge score. The reliability of the tool found to be 0.80 by using Cronbach's alpha. The statistical analysis show that during pre test knowledge 20 (40%) had poor knowledge. 23 students (46%) were under average category and 7 (14%) were in good category and after administration of Video Assisted Teaching Module on Tracheostomy care 46% were having excellent knowledge, 44% were having good knowledge and 5 were in average. It can be found out that the 't' value was 31.26 and p value was at 0.05 level which clearly show that Video assisted teaching module was very effective in increasing the knowledge of students regarding care of tracheostomy patient.

Key Words: *Video assisted teaching module (VATM), Tracheostomy care, B.Sc. Nursing 2nd year students.*

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I. Introduction

Advances and improvements in treatment of critical illness have resulted in more patients who require prolonged airway and airway clearance. Many of these patients will be benefited from prolonged support programs and will eventually be weaned from mechanical ventilation. Management of respiratory failure due to worsening chronic obstructive pulmonary disease and congestive heart failure, without an artificial airway, using non invasive ventilation, is often successful, avoiding the need for invasive. Tracheostomy is one of the most common intensive care unit procedures performed. The advantages include patient comfort, safety, ability to communicate, and better oral and airway care. Patients may have shorter intensive care unit stays, days of mechanical ventilation, and hospital stays. There are risks, long-term and acute, and the timing of when to do a tracheostomy must be individualized. As soon as the need for prolonged airway access is identified, the tracheostomy should be considered. There are plenty of reasons for a tracheostomy intubation.

Tracheotomy is a method of incubating the trachea, which is employed in several clinical settings, including the treatment of head and neck neoplasms. Tracheotomy is believed to facilitate weaning through changes in respiratory mechanics. Existing information concerning functional changes associated with tracheotomy are limited to comparisons with orotracheal intubation. Nurses care for patients continuously, 24 hours a day. They help patients to do what they would do for themselves if they could. Nurses take care of their patients, making sure that they can breathe properly, seeing that they get enough fluids and enough nourishment, helping them rest and sleep, making sure that they are comfortable.

Tracheostomy has been traditionally performed to bypass upper airway obstruction. In the ICU, 10–24% of patients require tracheostomy for prolonged respiratory support or weaning. Most critically ill patients tolerate short-term tracheal intubation with minimal complications. Prolonged (longer than 1–2 weeks) tracheal intubation is associated with adverse outcomes. Tracheostomy is also considered in patients predicted to require prolonged artificial clearance to minimize or avoid laryngeal injury secondary to an extended period of trans-laryngeal intubation. This can also avoid the undesirable side-effects of ongoing sedation allowing for increased patient comfort, cough, respiratory drive, mobility and gut function.

OBJECTIVES

- To assess the level of knowledge regarding Tracheostomy care among B.Sc.nursing students.
- To assess the effectiveness of video assisted teaching module on knowledge regarding Tracheostomy care among B.Sc. nursing students.
- To associate the level of knowledge with selected demographic variables among B.Sc. nursing students.

HYPOTHESIS

- H_1: There is a significant different between pre test & post test knowledge score among B.Sc. Nursing students.
- H_2: There is a significant association of pre-test knowledge score with demographic variable of the B.Sc. nursing students regarding Tracheostomy care.

II. Methodology

Research approach: A Quantitative Research Approach was used in this study.
Research design:A Quasi Experiment study research design.
Sample: In the present study the sample comprises of 50 B.Sc. Nursing II year students.
Sample size: The sample size 50.
Sampling technique:A simple random sampling technique was used in the study**.**

Score was graded as follows:

SCORE	Level of knowledge
0-6	Poor
7-12	Average
13-18	Good
19-25	Excellent

III. Result:

The data finding have been organized under following sections:
Section I: Comparison of the pre-test score and post – test knowledge score amongsamples.
Section II: Effectiveness of video assisted teaching programme to acquire knowledge among B.Sc nursing students
Section III: Association between pre-test knowledge score with selected demographicvariables

Section I: Comparison of the pre-test score and post – test knowledge score amongsamples.

TABLE NO. 1: Frequency of Pre-Test Score regarding Tracheostomy care among B.Sc. Nursing 2nd Year Students

S. No.	Knowledge Score	Pre Test knowledge Score	
		No.	%
1.	Poor (0-6)	20	**40**
2.	Average (7-12)	23	**46**
3.	Good (13-18)	07	**14**
4.	Excellent (19-25)	00	**00**
	Total	**50**	**100**

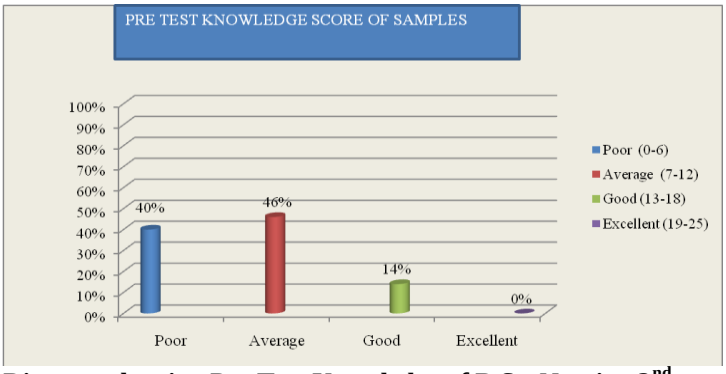

Fig 1-Bar Diagram showing Pre Test Knowledge of B.Sc. Nursing 2nd year students

(Table no.1 Fig no.1) The above table shows the pre-test knowledge score of the samples regarding knowledge of tracheostomy among the nursing students. It was noticed that poor category of knowledge of nursing students about tracheostomy care was assigned to the provided information that out 50, 20 (40%) had poor knowledge, 23 students (46%) fall under average category and 7(14%) were in good category.

TABLE NO. 2: Post Test Knowledge Score Regarding Tracheostomy Care Among B.Sc. Nursing 2nd year Students

S. No.	Knowledge Level	frequency	percentage
1.	Poor (0-6)	00	**00 %**
2.	Average (7-12)	05	**10%**
3.	Good (13-18)	22	**44%**
4.	Excellent (19-25)	23	**46%**
	Total	**100**	**100%**

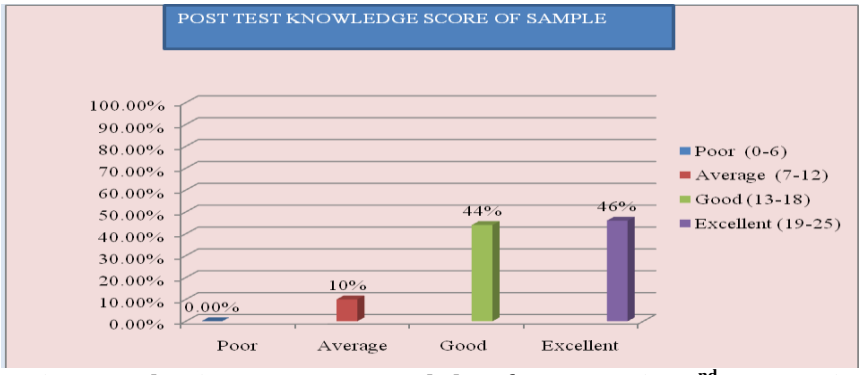

FIG 2:-Bar Diagram Showing Post Test Knowledge of B.Sc. Nursing 2nd year nursing students.

(Table no.2 Fig no.2)The above table shows the post test knowledge score of the samples regarding the knowledge of Tracheostomy care among B.Sc. Nursing students. It was found that out of 50 samples after giving knowledge regarding video assisted teaching module 46% were having excellent knowledge, 44% were having good knowledge and 5 were in average.

TABLE NO. 7: Mean and standard deviation of knowledge score regarding tracheostomy care.

S.No.	Knowledge score	Mean (x)	S.D (s)
	Pre test		
1.	**Post test**	8.38	3.56
2.		16.55	4.23

Mean and standard deviation of pre test knowledge score was 8.38 and 3.56 respectively and for the post test 16.55 P 4.23 respectively.

Section II: Effectiveness of video assisted teaching programme on knowledge among B.Sc nursing students

TABLE NO.8 Effectiveness of VATM by calculating mean, SD Difference and "t" value of knowledge tracheostomy care.

S.NO.	Area	Calculated "t" value	D.F	Table value	Significance
1.	Effectiveness of VATM on Tracheostomy care	31.26	49	2.02	Significance

When the mean and SD of pre-test and post-test were compared and 't' test was applied. It can be clearly seen that the 't' value was 31.26 and p value was at 0.05 level which clearly shows that "Video assisted teaching module" was very effective in increasing the knowledge of students regarding care of tracheostomy.**H_1 is accepted**.

Section III: Association between pre-test knowledge score with selected demographicvariables

The association between pre test knowledge score with selected demographic variables like age, gender, previous knowledge and source of previous knowledge show non significant.**Hence H_2 is rejected.**

IMPLICATION

Nursing Practice:-

The result of this study provides several implications of nursing practice.A video assisted teaching program is new and innovative teaching method for nursing practice.

It is one of the most cost-effective educational strategy to improve the nursing practice and in developing skills, and only skilled nurses will help to provide better care to the patient which will help to minimize complication related to tracheostomy care the patient and will help in the better recovery of the patient.

Nursing Education

When students work in the critical unit then they afraid to provide care to a patient on endotracheal tube due to lack of knowledge but this structured teaching program contains detailed information and serve as a guide for learning about the nursing care of a patient on role and responsibilities of a nurse in intubation and suctioning of a patient with an endotracheal tube through which students will gain a thorough knowledge and able to nursing care. Nursing education helps the student nurses with adequate knowledge, skills and attitude to fulfil their duties and responsibilities in the nursing field.

Nursing Research

Today Nurses are actively generating, publishing and applying research in practice to improve client care and enhance scientific knowledge base of Nursing. The study throws light on the area of nurses' knowledge regarding tracheostomy care. There is a lot of scope for exploring this area research can bed on tracheostomy care among staff nurses by multi factorial approaches and regarding evidence based nursing practices while caring a tracheostomy patient.

IV. Conclusion

The pre test knowledge score stated that poor category of knowledge of nursing students about tracheostomy care was found to be 20 (40%) had poor knowledge,23 students (46%) fall under average category and 7(14%) were in good category.The post test knowledge score obtained that after administration of VATM it was found that out of 50 samples after giving knowledge regarding video assisted teaching module 46% were having excellent knowledge, 44% were having good knowledge and 5 were in average level. For the effectiveness of video assisted teaching module. It was provided that the 't' value was 31.26 and p value was at 0.05 level, which clearly show that Video assisted teaching module was very effective in increasing the knowledge of students regarding care of tracheostomy patient.

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