A Study to Assess The Effectiveness of Self Instructional Module Regarding Tracheostomy Care in Terms of Knowledge Among Staff Nurses

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Abstarct: In the present study a pre experimental research design was used to achieve the objective of the study. The study was conducted in selected hospitals of Indore city. In the present study the sample comprised of 60 staff nurses. A structured questionnaire knowledge regarding tracheostomy care was prepared to study the sample. Descriptive and inferential statics had been used to analyze the data obtained through multiple choice question. This study indicates that the self instructional module is effective in increase the knowledge of staff Nurses regarding tracheostomy care.

Problem statemetnt: A pre experimental study to assess the effectiveness of self instructional module regarding tracheostomy care in terms of knowledge among staff nurses working in selected hospital, at Indore city.

I. INTRODUCTION

A tracheostomy is a surgically created opening in the trachea. A tracheostomy tube is placed in the incision to secure an airway and to prevent it from closing. Tracheostomy care is generally done every eight hours and involves cleaning around the incision, as well as replacing the inner cannula of the tracheostomy tube. After the site heals, the entire tracheostomy tube is replaced once or twice per week, depending on the physician's order.

The goals of tracheostomy care are to maintain the patency of the airway, prevent breakdown of the skin surrounding the site, and prevent **infection**. Sterile technique should be used during the procedure. The tracheostomy consists of two parts. **Inner cannula**—Smaller tube that fits inside the tracheostomy tube, which can be removed quickly if it becomes obstructed. This is often used for patients who have copious secretions.

Tracheostomy tube—An indwelling tube used to maintain patency of the tracheostomy. It can be made of metal (for long term use) or disposable plastic. The tube can be cuffed (a balloon is inflated to keep the tube in place) or uncuffed (air is allowed to flow freely around the tube). It can also be fenestrated, which allows the patient to speak.

The nurse has the primary role in tracheostomy care, as he or she is responsible for doing it in the acute care setting. The respiratory therapist may assist the nurse during the procedure and during respiratory assessment. Some patients may be sent home with a tracheostomy. In this case, the nurse and respiratory therapist are both responsible for teaching the patient and the family how to perform site care at home.
Tracheostomy care and management is more and more necessary in both the intensive care setting and the general ward. It is, therefore, even more important that trained nurses are equipped with the appropriate skills, knowledge and support to meet the unique needs of each patient safely and competently.

II. OBJECTIVES OF THE STUDY

- To assess the Pre test knowledge regarding tracheostomy care among staff nurses.
- To assess the Post test knowledge regarding tracheostomy care among staff nurses.
- To assess the effectiveness of self instructional module on knowledge regarding tracheostomy care among staff nurses.
- To find the association between level of knowledge with selected sociodemographic variables.

III. HYPOTHESES

Hypotheses is a statement of predicted relationship between variables.

To achieve the stated objectives, the following hypotheses have been developed
which will be tested at 0.05 level of significance.

- **H_1:**There is significant difference in pretest and post test knowledge scores on tracheostomy care among staff nurses.

- **H_2:** There is significant association between knowledge level with selected socio demographic variables.

IV. RESEARCH METHODOLOGY

A quasi experimental research design was used to achieve the objectives of the study. The study was conducted in selected hospital of Indore City. The samples were staff Nurses above 21 years of age. Sample size was 50. A non probability convenient purposive sampling technique uses convenient sampling method.

V. TOOLS AND TECHNIQUES

The tool for the study was prepared by referring to books, internet and related researches. Blue print for the section was prepared and then items were finalized. For each section a separate criteria checklist was prepared.

Section I: this section included items seeking information on demographic profile of sample.

Section II: this section comprised 30 knowledge items with a score 30, categorized under six broad areas one score was given for each correct response and zero for wrong response. The maximum score was 30 and minimum was zero.

Booklet was prepared on tracheostomy care in English and in Hindi language. The language of the self instructional module was kept as simple as possible. The booklet titled as 'Tracheostomy Care '.

VI. MAJOR FINDINGS OF STUDY AND DISCUSSION

The collected data was analyzed under various sections. The analysis was done by using descriptive and inferential statistics. The important findings were as follows:

Section I: Most of the samples (60%) were in the age group 21-30 years and very few (2%) were in the age group 41-50 years. The percentage of marital status staff nurses (60%) were single and married staff nurses were (40%) participated in study. Most of the samples who participated in study were females (60%) majority of staff nurses (58%) were working in Intensive care unit and few (8%) were working in other wards. Most of the sample (74%) 0-5 year experience and very few (2%) were above 16 years. Almost same qualification percentage of staff Nurses having G.N.M. (90%) and remaining were graduates (10%).

SECTION II: ASSESS THE LEVEL OF PRE AND POST TEST KNOWLEDGE OF NURSES REGARDING TRACHEOSTOMY CARE
(N = 50)

Knowledge score	Grade	Pretest		Posttest	
		No.	%	No.	%
1-6	Very poor	11	22.0	0	0.0
7-12	Poor	24	48.0	0	0.0
13-18	Average	13	26.0	3	6.0
19-24	Good	2	4.0	23	46.0
25-30	Very Good	0	0.0	24	48.0
Total		**50**	**100.0**	**50**	**100.0**

In the pretest, there were 11 (22%) staff nurses who got very poor score, 24 (48%) got poor score, 13 (26%) got average score and 2 (4%) got good score, but none got Very Good score. After the administration of SIM, the knowledge questionnaire was readministered to these staff nurses. The posttest results are 3 (6%) got average score, 23 (46%) got good score and 24 (48%) got Very Good score. Thus, we can see that after the administration of SIM, the knowledge of these staff nurses regarding the tracheostomy care increased significantly.

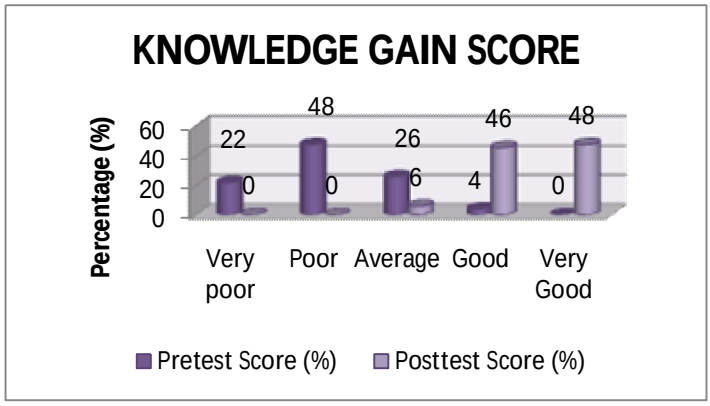

Fig. : Bar diagram showing the pretest and posttest knowledge gain score

SECTION III: EVALUATE EFFECTIVENESS OF SELF INSTRUCTIONAL MODULE BY COMPARING PRE AND POST TEST KNOWLEDGE SCORE
(N = 50)

Improvement score	Mean score	Mean difference	D.F	T value	P value
Pretest	10.02 ± 4.59	14.02	49	16.37	*0.0001
Posttest	24.04 ± 3.55				

****** p < 0.01, highly significant***

For comparing the mean and standard deviation between the pretest and posttest knowledge score, paired 't' test was applied. On statistical analysis, it can be seen that there was a highly significant ($p < 0.001$) improvement in the mean knowledge score of these staff nurses after the administration of Self Instructional Module was significantly higher than the pretest knowledge score. Thus, SIM was very effective in improving the knowledge score of these staff nurses regarding the knowledge of tracheostomy care.

VII. CONCLUSION

The self instructional module on knowledge of tracheostomy care found to be effective in increasing the knowledge among staff Nurses. The samples had a highly significant gain in knowledge after the self instructional module administration.

In the age group 21-30 years showed a gain in knowledge in all the content area of self instructional module.

The self instructional module on knowledge of tracheostomy care was found to be effective in enhancing the knowledge among staff nurses regarding tracheostomy care.

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