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A Study to Assess the Effectiveness of Demonstration on Tracheostomy Care Regarding Knowledge and Practice of Staff Nurses Working in Selected Hospital, Bhopal M.P.

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Abstract

Tracheostomy care and management are 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 practice, knowledge and support to meet the unique needs of each patient safely and competently.

Quasi-Experimental research design with Pre-test and Post-test control group design was adopted for the study. 60 staff nurses were selected as sample by non-probability judgement sampling technique, divided equally into experimental and control group. When comparing the knowledge and practice score, before implementation of demonstration and after implementation of demonstration, experimental group staff nurses gained more knowledge and practice score regarding tracheostomy care than control group.

Hence it indicates that demonstration is effective in increasing the knowledge and practice score of staff nurses regarding tracheostomy care

Keywords: Assess, effectiveness, demonstration, knowledge, practice, tracheostomy care, staff nurses

Introduction

Tracheostomy is an opening made into the trachea or windpipe. "This opening is called a stoma". A tube called tracheostomy or trach tube is placed into the opening. The trach tube allows the patients to breath in air directly into the windpipe instead of mouth and nose. Postoperative care is the most important aspect for achieving good patient outcomes. Unavailability of standard guidelines on tracheostomy management and inadequate training can make this basic practice complex. The nursing staff plays a very important role in bedside management, both in the ward and in the ICU set up. Therefore, it is crucial that all the staff nurses involved in providing postoperative care to such patients can do this efficiently.

Objectives of the Study

- i). To assess the knowledge of staff nurses regarding tracheostomy care before and after implementation of demonstration in control and experimental group.
- ii). To assess the practice of staff nurses regarding tracheostomy care before and after implementation of demonstration in control and experimental group.
- iii). To compare the level of knowledge between before and after implementation of demonstration in control and experimental group.

- iv). To compare the level of practice between before and after implementation of demonstration in control and experimental group.
- v). To correlate the level of knowledge with practice regarding tracheostomy care among staff nurses in control and experimental group.

Hypothesis

H₁: The posttest mean knowledge score of experimental group will be significantly higher than the posttest mean knowledge score of control group on tracheostomy care as measured by structured questionnaire at $p < 0.05$ level of significance.

H₂: The posttest mean practice score of experimental group will be significantly higher than the posttest mean practice score of control group on tracheostomy care as measured by checklist at $p < 0.05$ level of significance.

H₃: There will be significant relation between level of knowledge with Practice on Pre-test & Post-test scores of control & experimental group.

Material & Methods

Quasi-Experimental research approach with Pre-test and Post-test control group design which includes manipulation, control and no randomization. The study includes sixty staff nurses who were selected as sample by non-probability judgement sampling technique. The study was conducted in

selected hospital Bhopal (M.P). Demographic data, structured knowledge questionnaire, observational checklist and Demonstration were implemented for data collection procedure. The tool was finalized by consulting five experts in the field of medical & nursing. Pilot study was done for its clarity, unambiguity & feasibility on similar subject. Analysis and interpretation were done according to the objectives of the study.

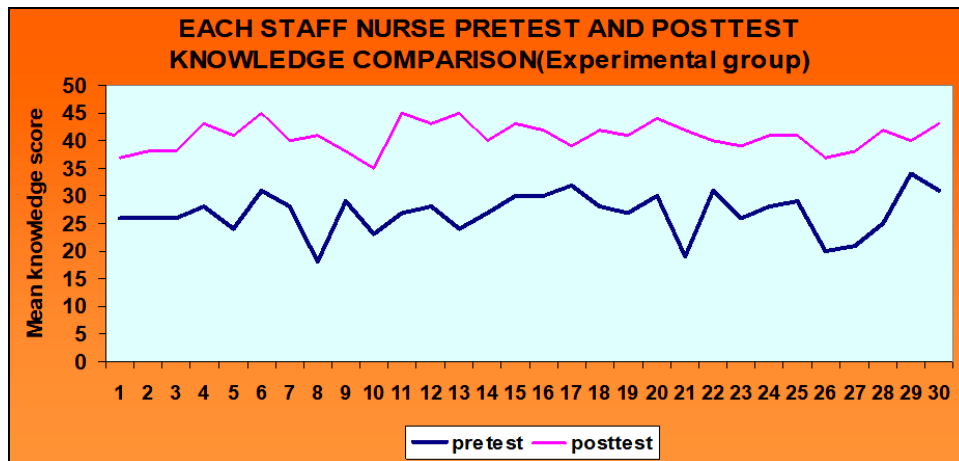
Major Findings

The following conclusions were drawn on the basis of the findings:

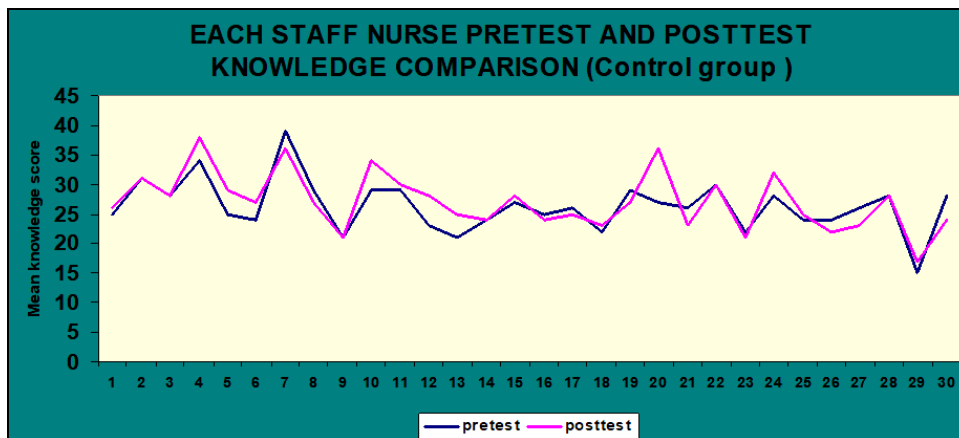
Table 1: Percentage and comparison of knowledge on tracheostomy care before and after implementation of demonstration in experimental and control group

N=60

	Experimental Group Knowledge			Control Group Knowledge			Independent t-test
	Mean score	%	SD	Mean score	%	SD	
Before Demo.	26.87	53.74%	3.87	26.30	52.60%	4.38	t=0.53 P=0.59 not significant
After Demo.	40.77	81.54%	2.56	27.07	54.14%	4.86	t=13.66P=0.001 significant



Graph 1: Line graph diagram showing comparison of Pre-test and post-test mean knowledge score of each patient in experimental group.

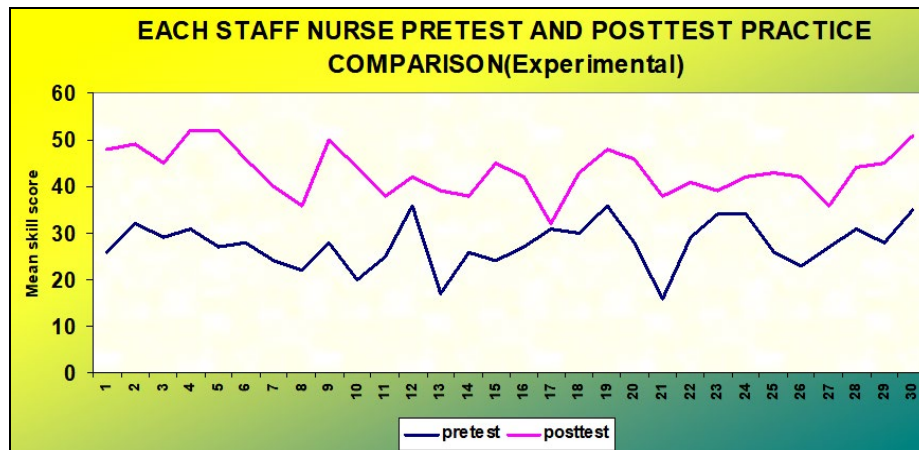


Graph 2: Line graph diagram showing comparison of Pre-test and post-test mean knowledge score of each patient in control group.

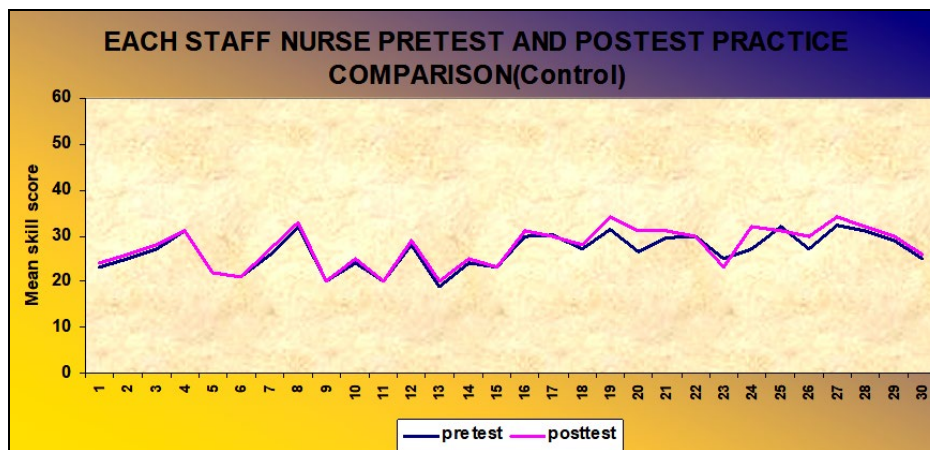
Table 2: Percentage and comparison of tracheostomy care practice before and after implementation of demonstration in experimental and control group.

N=60

	Experimental Group Practice			Control Group Practice			Independent t-test
	Mean score	%	SD	Mean score	%	SD	
Before Demo.	27.67	46.12%	5.05	26.59	44.32%	3.93	t=0.91 P=0.31 not significant
After Demo.	43.20	72.00%	5.03	27.57	45.95%	4.38	t=12.83 P=0.001 significant



Graph 3: Line graph showing comparison of Pre-test and post-test mean practice score of each patient in experimental group.



Graph 4: Line graph showing comparison of Pre-test and post-test mean practice score of each patient in control group

When finding the correlation before implementation of demonstration between knowledge and practice both groups are having poor positive not significant correlation.

After implementation of demonstration there are moderately positive significant correlation between knowledge and practice in experimental group and poor positive not significant correlation in control group.

Major Recommendations

Keeping in view the findings of the present study, the following recommendations have been made.

A similar study can be conducted by descriptive approach, often serves to generate hypothesis for future research.

- i). A study can be conducted using various methods of teaching to determine the most effective method of teaching example-self-instructional module, simulation etc.
- ii). A similar study can be conducted with a view to develop a protocol or procedure manual on tracheostomy care based on institution's policy.

Conclusion

The purpose of this study was to describe how nurses in Critical care units & ENT wards in hospital carry out tracheostomy care. Tracheostomy care is an area of practice that causes particular anxiety both for nurses and patients. Poor Knowledge & practice can have potentially devastating results but skilled practice can enhance a patient's safety, comfort and quality of life. Results indicated that practice generally conforms to best practice recommendations, and that the majority of nurses felt confident and supported to carry tracheostomy care. Although there are acknowledged

limitations to the generalisation of the findings of this study, they might be considered to provide a useful starting point on which to base future research

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