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A Study to Evaluate the Effectiveness of Planned Teaching Programme on Knowledge Regarding Tracheostomy Care Among Final Year GNM Students in Selected Schools of Nursing at Bagalkot, Karnataka

Rajashekharayya. C. Kanakalmath
Asso. Prof/ Hod
Department Of Medical Surgical Nursing
Tulza Bhavani College of Nursing Bijapur

Suvarna S Pinnapati
Vice Principal, Dhanush Institute of Nursing Sciences
Behind Durga Vihar, Station Road
Bagalkot 587101.

Dr Chetan S Patali
Msc (N) Phd (N), Psychiatric Nursing,Principal
Dhanush Institute of Nursing Sciences
Behind Durga Vihar, Station Road
Bagalkot 587101.

Dr Susheel Kumar Ronad
Professor
Dharawad Institute of Mental Health and Neuro Sciences
Old Pb Road Dharawad

Abstract:- A surgical process is employed to bypass Associate in Nursing higher airway obstruction, to permit removal of tracheobronchial secretion, to allow the long-run use of mechanical ventilation to forestall aspiration of oral or stomachic secretion within the unconscious or paralytic patient Associate in Nursingd to interchange an catheter. There area unit several malady processes and emergency condition that build a surgical process necessary. The patient undergone surgical process needs continuous observance and assessment. The fresh created gap should be unbroken patent by correct suctioning of secretion once the very important signs area unit stable. The patient is placed in an exceedingly semi-fowler's position to facilitate ventilation, promote evacuation minimize lump, and stop strain on the suture lines. physiological state and sedative agents should be administered with caution owing to the chance of suppressing the cough Reflex.

As Nurses area unit the integral part to alleviate of the patients apprehension and to produce a good suggests that of communication, it's very important to require steps for checking the data of employees nurses on medical aid of patients' undergone surgical process and surgical operation. The nurse has to be terribly argus-eyed and diligent in approach and will be with within the patient's reach to make sure a way of communication and the other very important wants of the patients1. Teaching is Associate in Nursing integral a part of Nursing and also the planned teaching for the nurses is one in every of the foremost effective suggests that of up care. thence the investigator felt the requirement to conduct planned teaching program relating to surgical process care effectiveness of a teaching program and contribute to boost surgical process care of employees nurse.

I. OBJECTIVES OF THE STUDY

- To assess the level of knowledge regarding tracheostomy care among final year G.N.M students.
- To develop and administer planned teaching programme regarding tracheostmy care
- To evaluate the effectiveness of PTP in terms of change in the level of knowledge regarding tracheostomy care among final year G N M students
- To determine the association between pre and post test knowledge scores with selected socio demographic variables.

II. METHODOLOGY

Research methodology is a way to solve the research problem systematically. It deals with defining the problem, formulation of hypothesis, methods adopted for data collection and statistical techniques used for analyzing the data with logical reason behind it.

- *Research approach*

An evaluative research approach was used to evaluate the effectiveness of information booklet through the difference between the pre test and post test knowledge score. Evaluative research consists of four phases, namely;

- Determining the objectives of the programme
- Develop a means of measuring the attainment of those objectives.
- Collecting data
- Interpret data in terms of objectives.

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Based on the statement of the study and objectives, an evaluative research approach was considered an appropriate research approach for the present study.

➢ *Research design*

Research design of a study spells out the basic strategies that the researchers adopt to develop information that is accurate and interpretable. It is the overall plan on obtaining answers to the questions being studied and handling some of the difficulties encountered during the research process. In the present study quasi experimental one group pre test and post test design was used to evaluate the effectiveness of PTP on knowledge regarding tracheostomy care among GNM students.

Group	Pretest	Intervention	Post test
GNM students	Knowledge regarding tracheostomy care before administration of PTP.	PTP	Knowledge regarding tracheostomy care after administration of PTP
	0_1	X	0_2

Table 1

➢ *Variables under study*

'Variable' is an attribute of a person or an object that varies, that is taken on different values. Variables in this study, are Independent variables: PTP regarding tracheostomy care

Dependent variables: Knowledge regarding tracheostomy care among final year GNM students.

Setting: 'Settings' are the more specific place where data collections will occur. The present study was conducted at selected Nursing institutions at Bagalkot.

Socio-demographic variables: The socio-demographic variables considered for this study were age, gender, religion, type of family, place of residence, previous exposure to tracheostomy care and source of information.

➢ *Population*

The term 'population' refers to "the aggregate or mass of subjects upon which researcher intended to generalize the findings." "The accessible population is the population of subjects which can be enumerated and studied." The 'target population' is the total group of subjects about which the investigator is interested to make generalization. The population for this study was GNM students of selected Nursing institutions at Bagalkot.

➢ *Sample and Sample size*

Sample consists of a subset of a population selected to participate in research study. In the present study GNM students who met the inclusion criteria were selected as samples. The sample size for the present study is 200.

➢ *Sampling technique*

Sampling technique is the procedure, which the researcher adopts in selecting the samples for the study. Purposive sampling technique is used for the present study.

➢ *Selection and development of the study tool*

The tool is the vehicle that could obtain data pertinent to the study and at the same time adds to the body of general knowledge in the discipline. Data collection tools were used by the researcher to observe or measure the key. Selection and development of the tool was done based on the objectives of the study. After the review of the related literature the self administered knowledge questionnaire is found appropriate. The developed tool was refined and valid by the subject experts, guide.

III. RESULTS

➢ *Presentation of the data:*

Section I : Distribution of sample characteristics according to demographic variables of subjects.

Section II: Analysis and interpretation of scores of final year G.N.M Nursing students regarding tracheostomy care.

Section III: Testing hypothesis.

Section I: Distribution of sample characteristics according to demographic variables.

This section describes the characteristics of final year G.N.M Nursing students in terms of age, gender, religion, type of family, place of residence, exposure to tracheostomy care and source of information.

Sl. No	Demographic variables	Frequency	Percentage

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		(f)	(%)
01	Age(in yrs)		
	a) 17 -19years	04	08%
	b) 20 - 22 years	32	64%
	c) 23 years & above	14	28%
02	Gender		
	a) Male	20	40%
	b) Female	30	60%
03	Religion.		
	a) Hindu	24	48%
	b) Muslim	08	16%
	c) Christian	13	26%
	d) Others	05	10%
04	Type of Family		
	a) Nuclear family	31	62%
	b) Joint family	16	32%
	c) Extended family	03	06%
05	Place of residence		
	a) Urban	33	66%
	b) Rural	17	34%
06	Do you have earlier exposure to tracheostomy care?		
	a) Yes	06	12%
	b) No	44	88%
07	Source of information on tracheostomy care.		
	a) Mass media		
	b) Books and Journals	04	08%
	c) Family/ friends	34	68%
	d) Others	10	20%
		02	04%

Table 1:- Frequency and percentage distribution of subjects according to socio-demographic variables. N=200

Table 1 reveals that:

- Maximum subjects 32 (64%) were in the age group of 20-22 years, minimum of 04 (08%) were in the age group of 17-19years.
- Most of the subjects 30 (60%) were females and 20(40%) were males.
- Maximum of the subjects 24 (48%) were belongs to Hindu religion, where as 13 (26%) belongs to Christian, 8 (16%) belongs to Muslim and only 05 (10%) belongs to other religion.
- Maximum of the subjects 31 (62%) were belongs to nuclear family, where as 16 (32%) belongs to Joint family, and only 03 (06%) belongs to extended family.
- Maximum of the subjects 33 (66%) were belongs to urban area, where as 17(34%) belongs to rural area.
- Maximum of the subjects 44 (88%) were had an earlier exposure to tracheostomy care, where as 06 (12%) were had no earlier exposure to tracheostomy care.
- Most of the subjects 34(68%) had information on tracheostomy care from books and journals, whereas 10 (20%) information from family/ friends, 04(08%) had information by mass media, and 02 0(04%) had information from others.

IV. GRAPHICAL REPRESENTATION OF SOCIO-DEMOGRAPHIC VARIABLES

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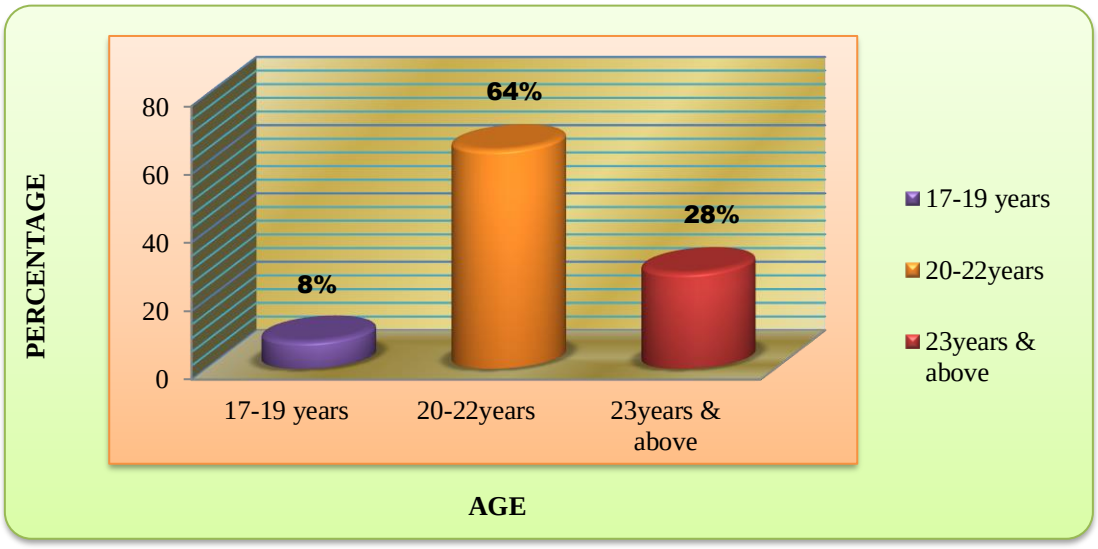
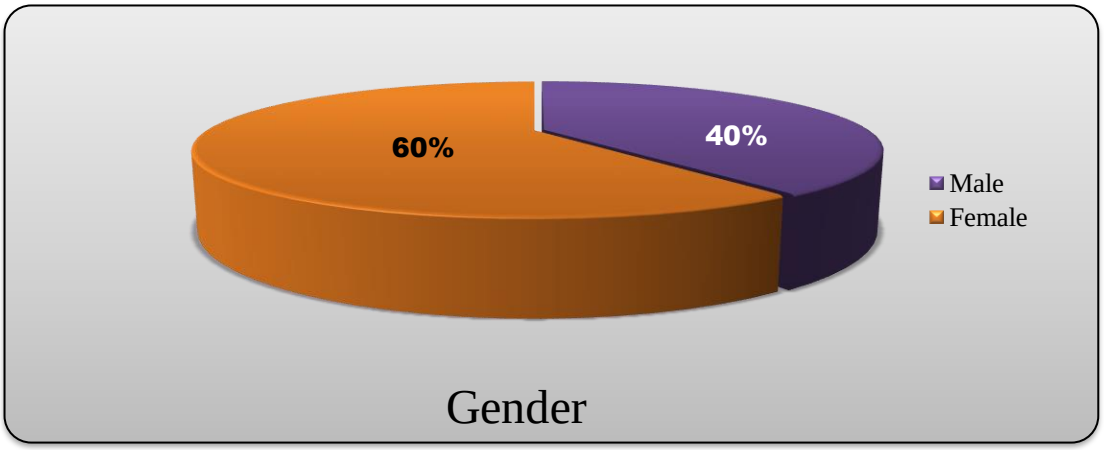
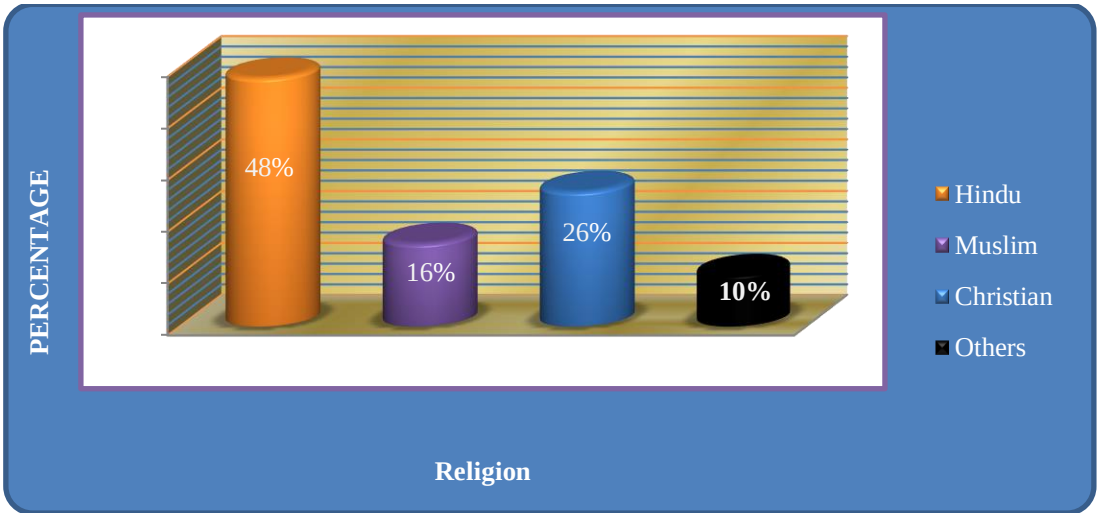


Graph 1:- Cylindrical graph showing percentage distribution of final year G.N.M Nursing students according to their age.



Graph 2:- Piediagram representing percentage distribution of final year G.N.M Nursing students according to their gender.



Graph 3:- Cylindrical graph represents percentage distribution of final year G.N.M Nursing students according to their Religion.

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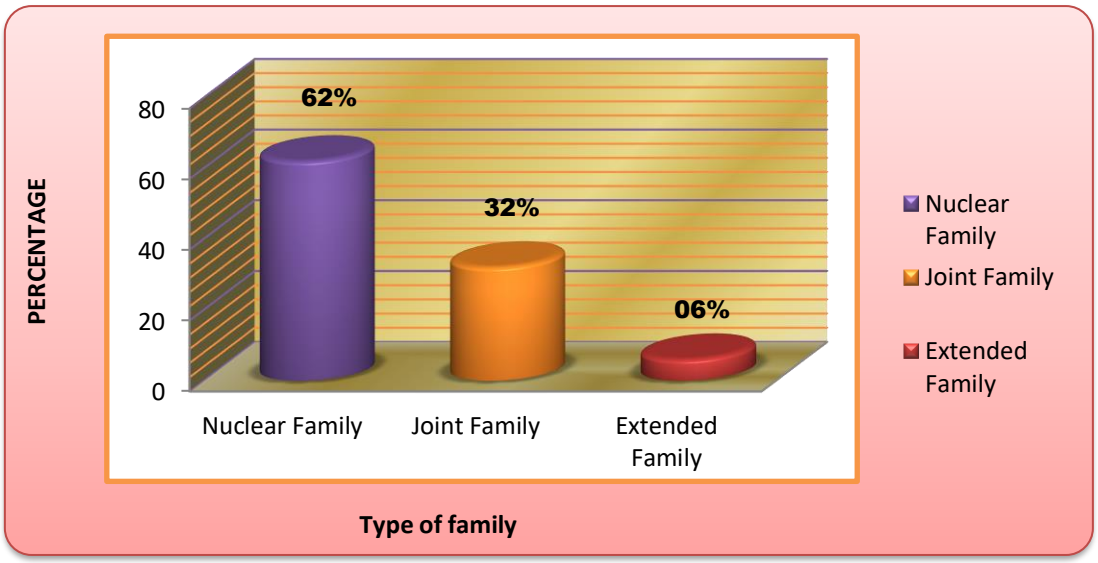
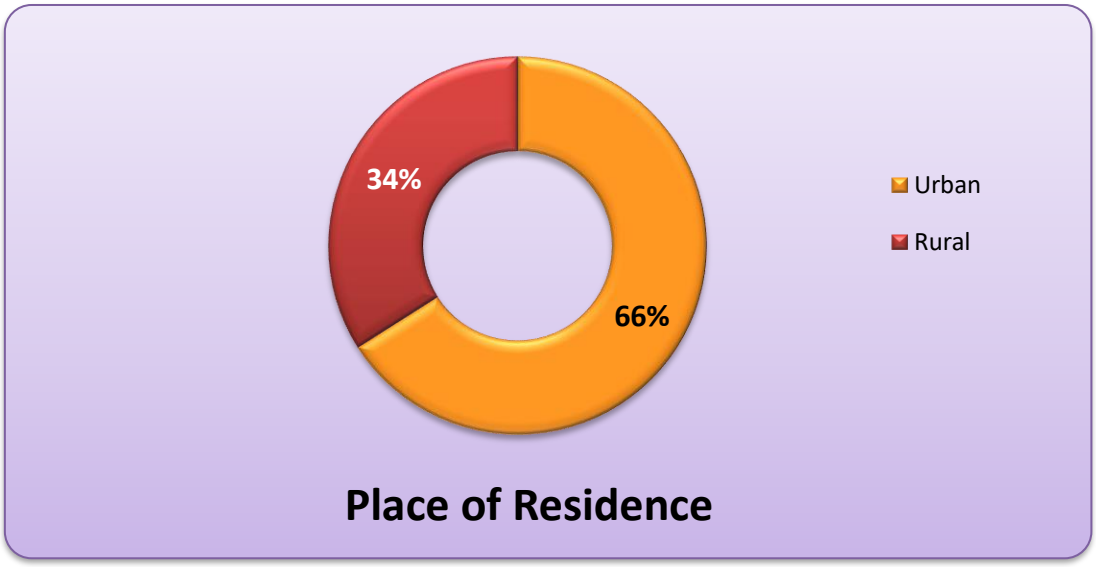
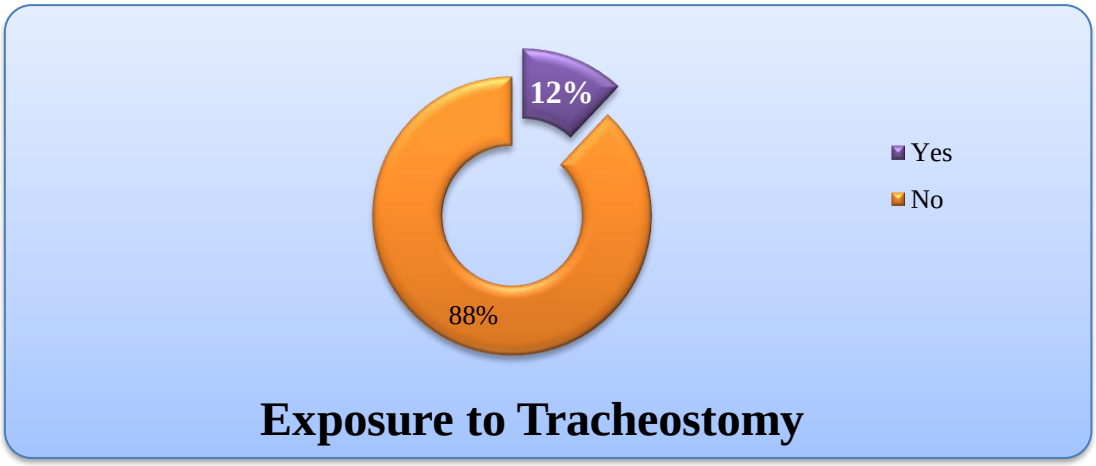


Graph 4:- Cylindrical graph represents percentage distribution of final year G.N.M Nursing students according to their type of family.



Graph 5:- Doughnut graph depicting percentage distribution of final year G.N.M Nursing students according to their place of residence.



Graph 6:- Doughnut graph depicting percentage distribution of final year G.N.M Nursing students according to their earlier exposure to tracheostomy care.

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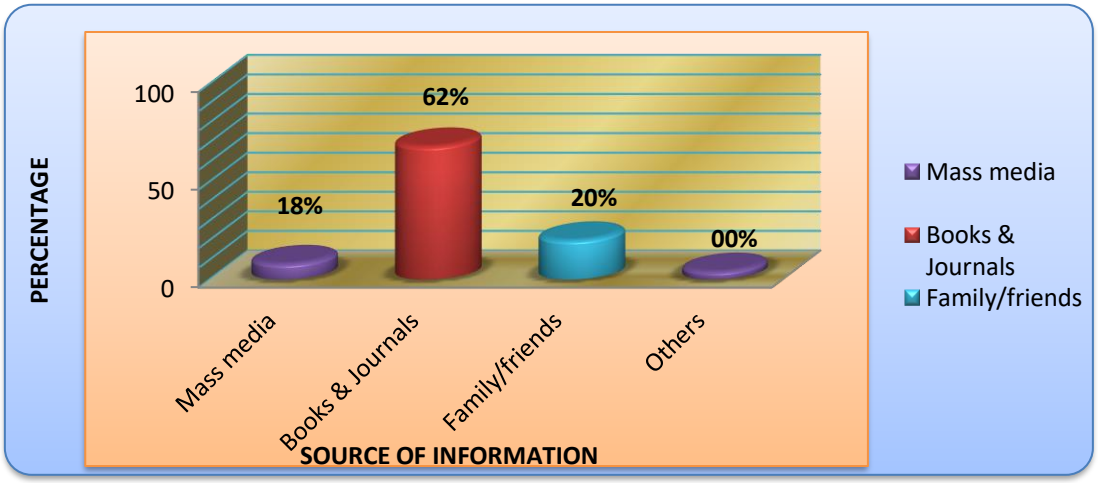

Graph 7:- Bar graph showing percentage distribution of final year G.N.M Nursing students according to their source of information.

Section II: Analysis and interpretation of scores of final year G.N.M regarding tracheostomy care.

Area of analysis	Mean	Median	Mode	Standard deviation	Range (H-L)
Pre test	10.96	11	11	2.74	11
Post test	22.64	23.54	23	3.98	9
Difference	11.68	12.54	12	1.24	2

Table 2:- Mean Median, Mode, Standard Deviation, and Range of knowledge score of subjects regarding tracheostomy care. n=50

Table 2 Reveals that, the pretest mean knowledge score is 10.96, median is 11, mode is 11, standard deviation is 2.74 and range is 11, where as in post test mean knowledge score is 22.64, median is 23.54, mode is 23, standard deviation is 3.98 and range is 9. The overall difference in mean knowledge score is 11.68, median is 12.54, mode is 12, standard deviation is 1.24 and range is 2.

Knowledge score	Pre test		Post test	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage %
Good (14 and above)	14	28%	42	84%
Average (8-14)	26	52%	08	16%
Poor (8 and below)	10	20%	00	00%

Table No 3: Frequency and percentage distribution of knowledge score of subjects regarding tracheostomy care. n=200

Table 3 reveals that, in pretest majority of subjects 26 (52%) had average Knowledge, 14 (28%) had good knowledge and 12 (24%) had poor knowledge, where as in post test 42(84%) of them had good knowledge and 08(16%) had average knowledge scores and none of them had poor knowledge score.

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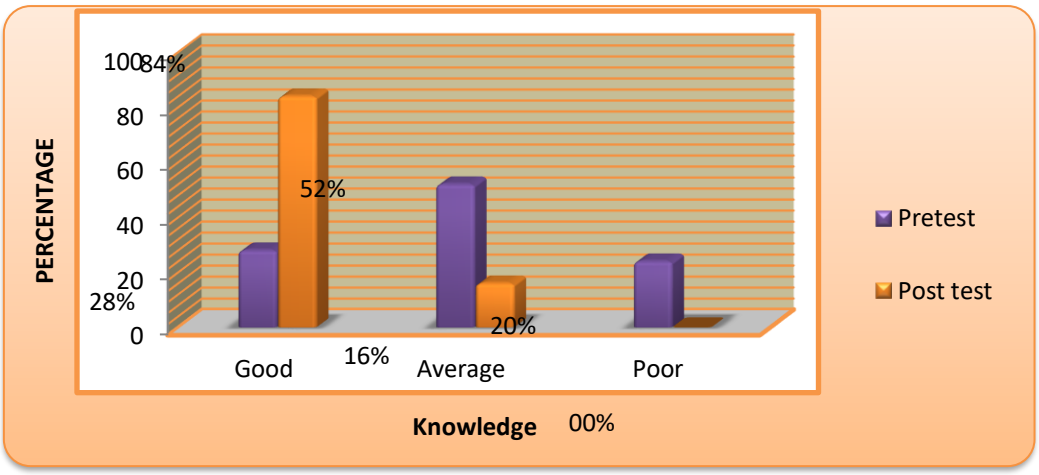

Graph 8:- Bar graph showing the distribution of the final year G.N.M Nursing students according their knowledge scores.

Group	Mean % of knowledge score of subjects			
	Total score	Pretest	Post test	Gain in knowledge
Self administered Knowledge Questionnaire	1500	35.76%	72.98%	37.22%

Table No 4: Pretest post-test percentage of knowledge scores of subjects regarding tracheotomy care. n=50

Table 4 reveals that, the mean percentage of knowledge scores in the pretest was 35.76% and 72.98% in the post test. Hence, the total gain in mean percentage of the knowledge scores is 37.22%.

Content Area	Mean % of knowledge score of subjects			
	Total score	Pretest	Post test	Gain in knowledge
Introduction, meaning and Definition	400	42.56	79.82	37.26
Indication and Contraindications	250	40.34	77.46	37.12
Immediate complications during procedure	600	37.28	72.96	35.68
Care of the patient with tracheostomy	250	41.94	80.78	38.84

Table No 5: Pretest post-test percentage of knowledge scores of subjects according to area wise regarding tracheostomy care. n=50

Table 4 reveals that, the mean percentage of gain in knowledge scores in the area of Introduction, meaning and Definition of tracheostomy care was 37.26%, Indication and Contraindications of tracheostomy care was 37.12%, Immediate complications during procedure of tracheostomy care was 35.68, and Care of the patient with tracheostomy was 38.84.

Section III: Testing of hypothesis

H_1: The mean post – test knowledge scores of subject exposed to planned teaching programme will be significantly greater than the mean pre test knowledge scores at 0.05 level of significance.

Groups	Mean difference ($\bar{d}$)	Standard Error of difference (SE $\bar{d}$)	Paired 't' values	
			Cal	Tab
Knowledge	11.68	2.84	20.93	1.96*

Table No 6: Mean difference ($\bar{d}$), Standard Error of difference (SE $\bar{d}$) and paired't' values of knowledge of subjects regarding tracheostomy care n=50 *Significant at 5% level

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Table 6 reveals that, the calculated value for knowledge paired't' value (t_{cal}=20.93) is greater than the tabulated value (t_{tab}=1.96). Hence H_1 is accepted. Hence planned teaching programme (PTP) was effective in increasing the knowledge of students.

H_2: There will be a significant association between the pre test knowledge levels with selected demographic variables among final year G.N.M Nursing students at 0.05 level of significance.

Sl. No	Demographic variables	Good 14	Average 26	Poor 10	Chi-square Cal	Chi-square Tab	Df
01	Age(in yrs)						
	a) 17 -19years	02	01	01	6.842	9.488	4
	b) 20- 22 years	09	20	03			
	c) 23 years & above	03	05	06			
02	Gender						
	a) Male	05	09	06	1.397	5.991	2
	b) Female	09	17	04			
03	Religion						
	a) Hindu	06	14	04			
	b) Muslim	02	03	03	7.954	12.59	6
	c) Christian	04	07	02			
	d) Others	02	02	01			
04	Type of Family						
	a) Nuclear family	09	17	05			
	b) Joint family	04	08	04	6.943	9.488	4
	c) Extended family	01	01	01			
05	Place of residence						
	a) Urban	10	16	07	3.214	5.991	2
	b) Rural	04	10	03			
06	Do you have earlier exposure to tracheostomy care?						
	a) Yes	03	01	02	1.845	5.991	2
	b) No	11	25	08			
07	Source of information on nutrition						
	a) Mass media	01	02	01			
	b) Self reading	08	21	05	8.364	12.59	6
	c) Family/ friends	04	02	04			
	d) Others	01	01	00			

Table No 7: Association between pre test knowledge levels with selected demographic variables among final year G.N.M Nursing Students n=200 *Significant at 0.05% level

Table 7 reveals that

- The calculated chi-square value is 6.842 and the tabulated chi-square value remains 9.488 *Hence $H_{2.1}$ is not accepted*
- The calculated chi-square value is 1.397 and the tabulated chi-square value remains 5.991. Hence *$H_{2.2}$ is not accepted*
- The calculated chi-square value is 7.954, is less than tabulated chi-square value 9.488. Hence *$H_{2.3}$ is not accepted*
- The calculated chi-square value is 6.943, is less than tabulated chi-square value 9.488. *Hence $H_{2.4}$ is not accepted*
- The calculated chi-square value is 3.214, is less than tabulated chi-square value 5.991. Hence *$H_{2.5}$ is not accepted*
- The calculated chi-square value is 1.845 less than tabulated chi-square value 5.991. Hence *$H_{2.5}$ is not accepted*
- The calculated chi-square value is 8.364, is less than tabulated chi-square value 9.488. Hence *$H_{2.7}$ is not accepted*
- The calculated chi square value is less than tabulated value. H_2 was rejected. Hence there is no association between the pre test knowledge levels with selected demographic variables.

V. CONCLUSION

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Numerous uncertainties stay regarding the place of surgery in medical aid. Reluctance to perform surgery is common, significantly within the presence of pre-existing chronic metabolism insufficiency (CRI), however some knowledge recommend there is also edges. the target of this study was to guage the influence of surgery on mortality in each medical aid and hospital, and to check the role of pre-existing CRI.: during a retrospective study of the records of 2901 patients admitted over a amount of five years 882 were known World Health Organization had been intubated and airy. Pre-existing CRI failed to influence the outcomes of the tracheostomised patients, no matter whether or not the CRI was preventative, restrictive or neuro-muscular2.

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