

A Study To Evaluate The Effectiveness Of Planned Teaching Programme On Knowledge And Practice Regarding Tracheostomy Care Among Staff Nurses Working In Selected Hospital At Udaipur

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Abstract:

Background: The procedure of tracheostomy has been known for about 3500 years but it was rarely performed until 18009. During 1546 to 1833 (period of fear), tracheostomies were performed only by a few brave surgeons, often at the risk of their reputation. The incidence of overall complications of tracheostomy currently ranges from 5-40%. Generally accepted risk of complications is around 15% with most common being hemorrhage, tube obstruction or tube displacement. Besides these, the other known complications are scabs and crusts formation, dysphagia, difficulty with decannulation of the tracheostomy tube and tracheal stenosis. Death occurs in 0.5% to 1.6% of patients and is most commonly caused by hemorrhages or tube displacement. Moreover, emergency tracheostomy carries a two to five fold increase in incidence of complications over an elective procedure.⁴

Material and methods: The conceptual framework for this study is based on **King's theory of goal attainment (Imogene M King)**; Pre - experimental one group pre-test post-test study design was adopted for this study. Samples were selected by Non - probability convenient sampling technique, and this study was conducted in selected Hospital of, Udaipur. Total 60 Staff nurse were selected. The pilot study was conducted; final data was collected, analysed and interpreted by using descriptive and inferential statistics.

Result: The mean pretestknowledge score is15.12 with mean percentage 50.04%, median 14.5, mode 15, and standard deviation was 4.48. Whereas the mean pretest practice score was 16.38 with mean percentage 54.3, median 15, mode 15 and standard deviation 3.48.

The mean posttestknowledge score is23.20 with mean percentage 77.33%, median 24, mode 24, and standard deviation was 2.84. Whereas the mean posttest practice score was 23.37 with mean percentage 77.9, median 24, mode 24 and standard deviation 2.87.

Paired *t* calculated value for enhancement in knowledge is 31.41 **p*<0.05 is significant at 0.05% level. And Paired *t* calculated value for enhancement in practice score is 28.8 **p*<0.05 is significant at 0.05% level. Hence hypothesis *H*₁and *H*₂ accepted. This indicates that the planned teaching programme was found to be effective in increasing the knowledge and practice of Staff nurse regarding tracheostomy care.

Findings related to association shows that, with respect to the pretest knowledge score and selected demographic variables it was found to have significant association with area of working and frequency of tracheostomy care you give in a month. Whereas with respect to the pretest practice score and selected demographic variables it was found to have significant association with only one variable that is area of working. Hence we conclude the hypothesis *H*₃ is partially accepted.

Key word: Knowledge, Practice Planned teaching programme Tracheostomy care

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I. Introduction

The main components of a tracheostomy tube are universal across the range of designs. The tube shaft is arc shaped and designed as either a single cannula or dual cannula (inner and outer) tracheostomy tube. It may have a cuff to provide an airtight seal, to facilitate positive pressure ventilation and reduce the risk of aspiration. For ease of insertion it is supplied with an obturator. The neck flange helps secure the tracheostomy tube to the skin of the neck and stabilise its position. Short term tracheostomy tubes have a

15mm connector to allow attachment to airway equipment. Long term tracheostomy tubes may have a low profile flange which is more discreet but cannot be attached to airway equipment. Various tracheostomy accessories exist such as speaking valves, decannulation caps.⁵

In the guidelines for Nursing Care of the Tracheostomy Patients three major factors must be considered which includes

1. Humidification
2. Mobilization of secretions
3. Airway patency.

Many of the nursing skills employed are aimed at the mobilization of pulmonary secretions. Frequent turning, encouragement of deep breathing, and ambulation are important in the prevention of pulmonary complications.⁵

II. Material and methods

Research Approach

A quantitative research approach was used to find out the effectiveness of planned teaching programme on knowledge and practice regarding tracheostomy care among staff nurses.

Research Design

The research design used in this study was pre experimental one group pre test post test design which is represented in the table given below.

Table.1. Research design: Pre Experimental One Group Pre test Post Test Design

Group	Pre test	Intervention	Post test
	O ₁	X	O ₂

Group: Adolescents aged between 13 to 18 years in selected school at Udaipur.

O₁ : Pre test (Before administering planned teaching programme)

X : Intervention (Planned teaching programme)

O₂ : Post test (After administering structure teaching programme)

Variables under Study

Independent variable

Independent variables are the cause or influence the dependent variable which is manipulated. In the present study the independent variable was planned teaching programme on tracheostomy care.

Dependent variable

Dependent variables are the response, behaviour or outcome that is predicted on research. Changes in the dependent variable are presumed to be influenced by the independent variable. In the present study the dependent variable refers to knowledge and practice of staff nurses regarding tracheostomy care.

Demographic variables

The demographic variable confound the relationship between the independent and dependent variable and that need to be controlled either through building in research design or through statistical procedure. In the present study the demographic variables are age in years, gender, educational qualification, work experience, average number of tracheostomy care you give in a month , previous knowledge regarding tracheostomy care and source of information

Setting of the Study

Settings are the more specific places where data collection will occur. The setting for the present study was selected Hospital at Udaipur.

Population of the study

Population is the total number of people who met the criteria which the researcher has established, for a study, and from whom the subjects will be selected and to whom the findings will be generalized. In this study population consisted of Staff nurses working in selected Hospital at Udaipur.

Sampling Technique

Sampling is a process of selecting a portion of the population to obtain data, regarding a problem. In this study the samples were selected through convenient sampling technique.

Sample and Sample Size

A sample is a small proportion of the population selected for observation and analysis. In this study the sample comprised of 60 Staff nurses from selected Hospital, Udaipur.

Sampling Selection Criteria

INCLUSION CRITERIA:

- Staff nurses who are registered under any of the nursing council
- Staff nurses who are available during data collection procedure
- Staff nurses, who know to read, understand and write English language

EXCLUSION CRITERIA:

- Staff nurses who are working in OT (Operation theatre) and OPD
- Staff nurses who are not willing to participate in the study
- Student nurses and nurses who are not registered

Development and Description of Tool

Data collection tools are the devices or instruments that researches use to observe or measure the key variable in the research problem. A valid and reliable data collection instrument is considered important to collect the data. A structured knowledge questionnaire was prepared to assess the knowledge and check list to assess the practice of Staff nurses regarding tracheostomy care. The main strength behinds the tool was,

- Related review of literature
- Based on the opinions and suggestion of experts.
- Books, journals, internet etc.

Description of the Tool:

The tool consists of three parts:

Section A - It described the selected sample characteristic. It comprised of 8 items for obtaining information regarding age in years, gender, educational qualification, work experience, average number of tracheostomy care you give in a month , previous knowledge regarding tracheostomy care and source of information

Section B - Consist of structured knowledge questionnaire on tracheostomy care. This section consists of 30 items on selected aspects. The selected aspects are:

- Introduction and definition of tracheostomy care (6.7%)
- Basic anatomy of trachea (10%)
- Indication for tracheostomy (6.7%)
- types of tracheostomy and tracheostomy tubes (20%)
- Tracheostomy insertion (10%)
- Tracheostomy suctioning (30%)
- Nursing responsibilities (16.6%)

Each items had only one correct response and each correct response was scored one and incorrect or not attempt was scored zero. The total possible score of the structured knowledge questionnaire was 30. The same questionnaire was used for the assessment of knowledge level in pre-test and post test.

Section C:

Check List was used to assess the practice of staff nurses regarding tracheostomy care. It was marked on yes column if the participant performs the steps of procedure and mark on no column if not. All yes carries 1 mark and no carries zero. Each step carries 1 marks and total possible score of the check list was 30. The same check list was used to assess the practice in pre-test and post test.

Table.2.Scoring Criteria of the structured knowledge questionnaire

Interpretation of level of knowledge	Score	Percentage
Inadequate knowledge	0 – 10	<35%
Moderately adequate knowledge	11- 20	35-70%
Adequate knowledge	21 - 30	>70%

Table.3.Scoring Criteria of check list

Interpretation	Score	Percentage
Inadequate Practice	0 – 10	<35%
Moderately adequate Practice	11- 20	35-70%
Adequate Practice	21 - 30	>70%

Data Collection Procedure

The investigator conducted the main study from 10th April 2019 to 10th May 2019 in In selected Hospital, at Udaipur. The sample size was 60. Written permission was obtained from head of the institution. The investigator introduced himself and purpose of the study was explained to samples then informed consent was obtained. Confidentiality was assured to the entire subject to get their cooperation. In pre test structured knowledge questionnaire was adopted to assess the knowledge level of Staff nurses regarding tracheostomy care. And check list was used to assess the practice, Participants were asked to perform the tracheostomy care

procedure on a simulated manikin and on the basis of performance scoring was given as per the check list criteria. On the same day planned teaching programme on tracheostomy care was administered. Post-test was done on day 7 onwards with the same questionnaire to assess the knowledge and same check list to assess the practice on tracheostomy care. The investigator thanked and appreciated all the participants for their cooperation. It took 60 minutes to implement the intervention.

Plans for Data Analysis

Data analysis is the technique used to reduce, organize and give meaning to the data. In the present study, data obtained were analyzed on the basis of the objectives of the study using descriptive and inferential statistics.

Plan for data analysis was as follows,

- A master data sheet was prepared by the investigator
- Distribution of samples according to socio demographic variables were analyzed using frequency and percentage distribution.
- Mean, mean percentage, median and standard deviation of pre test and post test knowledge and practice score.
- Paired t- test to determine effectiveness of planned teaching programme by overall Comparing Mean Pre Test and Post Test Knowledge and practice Scores of staff nurses regarding tracheostomy care.
- Chi square test was used to find out the significant association between knowledge, practice and demographic variables of subjects.

III. Results

SECTION 1: Findings regarding demographic data of participants

Table.4: Findings regarding demographic characteristics of participants

N=60

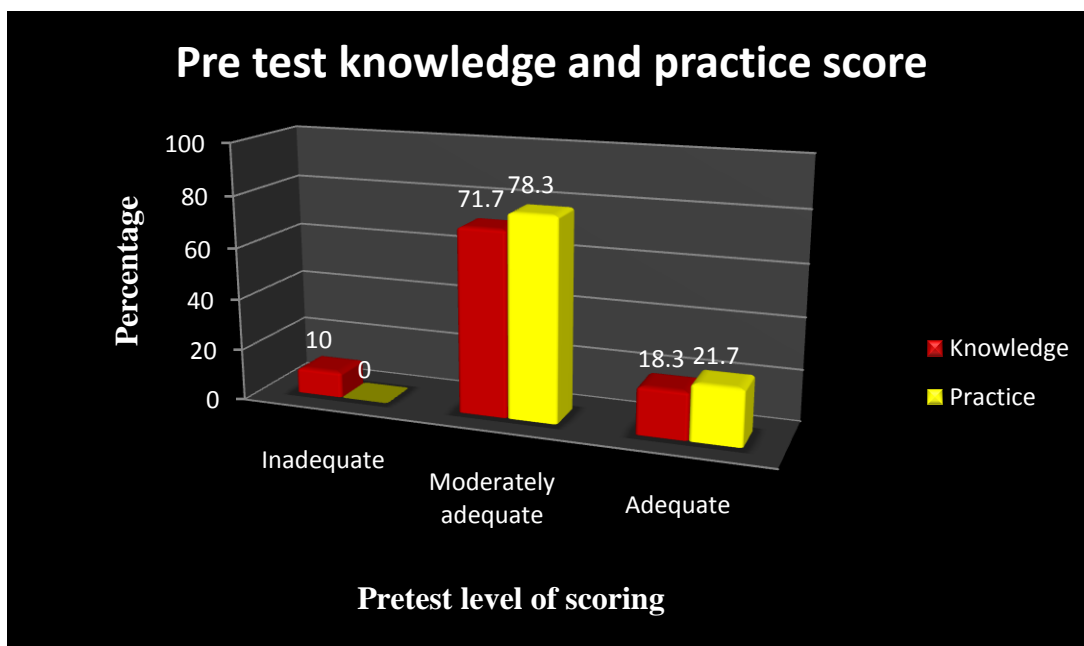
Demographic variables	Frequency	Percentage
1. Age in years		
a. 21 to 25 years	19	31.7
b. 26 to 30 years	34	56.6
c. 31 to 35 years	7	11.7
d. More than 36 years	0	0
2. Gender		
a. Male	35	58.3
b. Female	25	41.7
3. Education qualification		
a. GNM	29	48.3
b. Basic BS.c / PB.BS.c	31	51.7
c. Post graduate nursing	0	0
4. Working experience		
a. 0 to 5 years	31	51.7
b. 6 to 10 years	22	36.7
c. 11 to 15 years	7	11.7
d. 16 years and above	0	0
5. Area of working		
a. General ward	28	46.6
b. ICU	19	31.7
c. Emergency / Trauma	13	21.7
6. Frequency of tracheostomy care you give in a month		
a. Frequently	30	50
b. Rarely	18	30
c. Never	12	20
7. Previous knowledge regarding tracheostomy care		
a. Yes	60	100
b. No	0	0
8. If yes, Mention the source of information		
a. Training programme	9	15
b. Social media	5	8.4
c. Books / Journals	14	23.3
d. Work experience	32	43.3

Section 2: Findings related to pre test knowledge and practice score of staff nurses regarding tracheostomy care.

Table.5: Pre-test knowledge and practice score regarding tracheostomy care among Staff nurse.

n=60

Pre-test score	Knowledge		Practice	
	Frequency	Percentage	Frequency	Percentage
Inadequate	6	10%	0	0%
Moderately adequate	43	71.7%	47	78.3%
Adequate	11	18.3%	13	21.7%



Graph.11: Level of knowledge and practice score in pre-test

Table 5& Graph 11. Depicted that in pre-test knowledge assessment majority of the participants 43(71.7%) were having moderately adequate knowledge, 11 (18.3%) were having adequate knowledge and 6 (10%) of the participants were having inadequate knowledge. Where as in pre-test practice assessment majority of the participants 47 (78.3%) were having moderately adequate practice, 13 (21.7%) were having adequatepractice and none of the participants were having inadequate practice.

Table.6: Analysis of pre-test knowledge and practice score

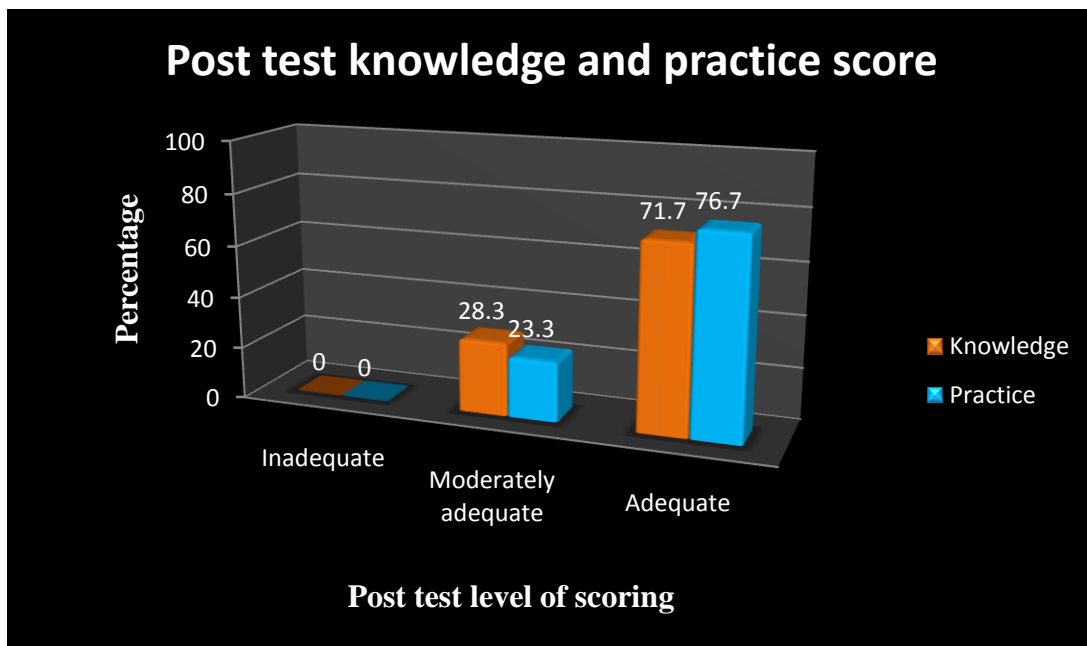
Pre-test assessment	Mean	Mean Percentage	Median	Mode	SD
Knowledge	15.12	50.04	14.5	15	3.48
Practice	16.38	54.3	15	15	3.48

Table 5 reveals that the mean pretestknowledge score is15.12with mean percentage 50.04%, median 14.5, mode 15, and standard deviation was 4.48. Whereas the mean pretest practice score was 16.38 with mean percentage 54.3, median 15, mode 15 and standard deviation 3.48.

Section 3: Findings related to post test knowledge and practice score of staff nurses regarding tracheostomy care.

Table.7: Post-test knowledge and practice score regarding tracheostomy care among Staff nurse. n=60

Post -test score	Knowledge		Practice	
	Frequency	Percentage	Frequency	Percentage
Inadequate	0	0%	0	0%
Moderately adequate	17	28.3%	14	23.3%
Adequate	43	71.7%	46	76.7%



Graph.12: Level of knowledge and practice score in post -test

Table 7& Graph 12. Depicted that in post-test knowledge assessment majority of the participants 43 (71.7%) were having adequate knowledge, 17 (28.3%) were having moderately adequate knowledge and none of the participants were having inadequate knowledge. Where as in post-test practice assessment majority of the participants 46 (76%) were having adequate practice, 14 (23.3%) were having moderately adequate practice and none of the participants were having inadequate practice.

Table.8: Analysis of pre-test knowledge and practice score

Pre-test assessment	Mean	Mean Percentage	Median	Mode	SD
Knowledge	23.20	77.33	24	24	2.84
Practice	23.37	77.9	24	24	2.87

Table 8 reveals that the mean posttest knowledge score is 23.20 with mean percentage 77.33%, median 24, mode 24, and standard deviation was 2.84. Whereas the mean posttest practice score was 23.37 with mean percentage 77.9, median 24, mode 24 and standard deviation 2.87.

Section 4: Findings related to effectiveness of planned teaching programme on knowledge regarding tracheostomy care among staff nurses

Table 9: Comparison between the pre-test and post-test knowledge score of participants.

	Adequate Knowledge		Moderately adequate knowledge		Inadequate Knowledge	
	F	%	F	%	F	%

Pre-test	11	18.3%	43	71.7%	6	10%
Post-test	43	71.7%	17	28.3%	0	0%

Figure.13: : Comparison of pre-test and post-test knowledge score

Table 9& figure 13 depicted that in pre-test majority of the participants 43 (71.7%) were having moderately adequate knowledge, 11 (18.3%) were having adequate knowledge and 6 (10%) of the participants were having inadequate knowledge. Where as in post-test majority of the participants 43 (71.7%) were having adequate knowledge, 17 (28.3%) were having moderately adequate knowledge and none of the participants were having

Table 10:Effectiveness ofplanned teaching programme on tracheostomy carein terms of knowledge.

	Mean	Mean %	Mean difference	SD	Df	paired 't' value	p value
Pre-test	15.12	50.04%	8.08 (27.2%)	3.48	59	31.41	<0.05
Post-test	23.2	77.33%		2.84			

Table 10.Illustrates that the mean post-test knowledge score 23.2 with mean percentage(77.33%) was greater than the mean pre-test knowledge score 15.12 with mean percentage(50.04%). The mean difference between pre-test and post-test practice score was 8.08 with the mean percentage of (27.2%). Paired t calculated value is 31.41 *p<0.05 is significant at 0.05% level. Hence hypothesis H₁was accepted. This indicates that the planned teaching programme was found to be effective in increasing the knowledge of Staff nurse regarding tracheostomy care.

Section 5: Findings related to effectiveness of planned teaching programme on practice regarding tracheostomy care among staff nurses

Table 11: Comparison between the pre-test and post-test practice score of participants.

	Adequate Practice		Moderately adequate Practice		Inadequate Practice	
	F	%	F	%	F	%
Pre-test	13	21.7%	47	78.3%	0	0%
Post-test	46	76.7%	14	23.3%	0	0%

Table 12:Effectiveness of planned teaching programme on tracheostomy care in terms of practice.

	Mean	Mean %	Mean difference	SD	Df	paired 't' value	p value
Pre-test	16.38	54.6%	7.28 (24.26%)	3.48	59	28.08	<0.05
Post-test	23.67	78.9%		2.87			

Table 12.Illustrates that the mean post-test practice score 23.67 with mean percentage(78.9%) was greater than the mean pre-test practice score 16.38 with mean percentage(54.6%). The mean difference between pre-test and post-test practice score was 1.28 with the mean percentage of (24.26%). Paired t calculated value is 28.08 *p<0.05 is significant at 0.05% level. Hence hypothesis H₂ was accepted. This indicates that the planned teaching programme was found to be effective in increasing the practice of Staff nurse regarding tracheostomy care.

Section 6: Findings related to association between pre: test knowledge and practice score with selected demographic variables of subjects.

The chai square test was computed to determine the association between pre-test knowledge and practice score and selected demographic variables. The following hypothesis was tested.

H₃: There will be a significant association between mean pre-test knowledge and practice scores and selected socio-demographic variables.

Section 6.A. Association between pre-test knowledge score and selected demographic variables

Table 13: Association between pre-test knowledge score and selected demographic variables

Demographic variables	f	< median	>median	df	χ^2 Calculated value	χ^2 Tabulated value	Remarks
1.Age in years							
a. 21 to 25 years	19	9	10	2	1.456	5.991	NS
b. 23 to 30 years	34	16	18				
c. 31 to 35 years	7	5	2				
2.Gender							
a. Male	35	15	20	1	1.714	3.841	NS
b. Female	25	15	10				
3.Educational qualification							
a. GNM	29	16	13	1	0.601	3.841	NS
b. Basic B.Sc. / PB.B.Sc Nursing	31	14	17				
4.Working experience							
a. 0 to 5 years	31	18	13	2	5.001	5.991	NS
b. 6 to 10 years	22	7	15				
c. 11 to 15 years	7	5	2				
5.Area (Department) of working							
a. General ward	28	11	17	2	6.241	5.991	S
b. ICU	19	14	5				
c. Emergency/Trauma	13	5	8				
6.Frequency of tracheostomy care you give in a month							
a. Frequency	30	7	23	2	21.422	5.991	S
b. Rarely	18	11	7				
c. Never	12	12	0				
7.Source of information							
a. Training programme	9	2	7	3	4.246	7.815	NS
b. Social media	5	2	3				
c. Book / Journal	14	9	5				
d. Work experience	32	17	15				

Table 13 Shows that the calculated chi square value was more than the chi square tabulated value at 0.05 level of significance for the selected demographic variables like area working and frequency of tracheostomy care you give in a month whereas it was found to have less than tabulated value for the rest of the demographic variable like age, gender, educational qualification, working experience, and source of information. This indicates that there is significant association between pre-test knowledge score and the demographic variable area of working. Hence we partially accepted the hypothesis H3

Section 6.B. Association between pre-test practice score and selected demographic variables

Table 14: Association between pre-test practice score and selected demographic variables

Demographic variables	f	< median	>median	df	χ^2 Calculated value	χ^2 Tabulated value	Remarks
1.Age in years							
d. 21 to 25 years	19	6	13	2	0.784	5.991	NS
e. 23 to 30 years	34	9	25				
f. 31 to 35 years	7	1	6				
2.Gender							
c. Male	35	9	26	1	0.039	3.841	NS
d. Female	25	7	18				
3.Educational qualification							
c. GNM	29	7	22	1	0.184	3.841	NS
d. Basic B.Sc. / PB.B.Sc Nursing	31	9	22				
4.Working experience							
d. 0 to 5 years	31	10	21	2	1.219	5.991	NS
e. 6 to 10 years	22	5	17				
f. 11 to 15 years	7	1	6				
5.Area (Department) of working							
d. General ward	28	5	23	2	6.121	5.991	S

e.	ICU	19	9	10				
f.	Emergency/Trauma	13	2	11				
6.Frequency of tracheostomy care you give in a month								
d.	Frequency	30	6	24	2	2.074	5.991	NS
e.	Rarely	18	5	13				
f.	Never	12	5	7				
7.Source of information								
e.	Training programme	9	2	7	3	0.265	7.815	NS
f.	Social media	5	1	4				
g.	Book / Journal	14	4	10				
h.	Work experience	32	9	23				

NS: Non significant

S: Significant

Table 14 Shows that the calculated chi square value was more than the chi square tabulated value at 0.05 level of significance for the selected demographic variables like area working, whereas it was found to have less than tabulated value for the rest of the demographic variable like age, gender, educational qualification, working experience, frequency of tracheostomy care you give in a month and source of information. This indicates that there is significant association between pre-test practice score and the demographic variable area of working. Hence we partially accepted the hypothesis H3.

IV. Discussion and conclusion

Findings related to demographic data revealed that majority (56.6%) of respondents were in the age group of 26 to 30 years, 31.7% respondents were in the age group of 21 to 25 years, 11.7% respondents were in the age group of 31 to 35 years and there were respondents were in the age group of more than 36 years. Distribution of respondents according to gender shows that 58.3% of the samples were male and 41.7% were female. Distribution of samples based on educational qualification shows that majority (51.7%) samples were graduates - Basic B.Sc. / PB.B.Sc Nursing, 48.3 % samples were, GNM qualified and no samples were post graduated in nursing. Distribution of samples based on working experience shows that 51.7% were having experience of 0 to 5 years, 36.7% were having 6 to 10 years of experience, 11.7% were having 11 to 15 years' experience and no sample was having experience of 16 years and above.

The mean pretest knowledge score is 15.12 with mean percentage 50.04%, median 14.5, mode 15, and standard deviation was 4.48. Whereas the mean pretest practice score was 16.38 with mean percentage 54.3, median 15, mode 15 and standard deviation 3.48.

The findings were consistent with the similar study conducted on nurses' knowledge and competence in performing tracheal suctioning in acute and high dependency ward areas and to investigate discrepancies between knowledge and practice using method triangulation. 28 nurses were observed using nonparticipant observation and a structured observation schedule. Each subject was interviewed and questioned about their tracheal suctioning practices, and subsequently completed a knowledge-based questionnaire. Scores were allocated for knowledge and practice. The findings demonstrated a poor level of knowledge for many subjects. This was also reflected in practice, as suctioning was performed against many of the research recommendations. Many nurses were unaware of recommended practice and a number demonstrated potentially unsafe practice. In addition, there was no significant relationship between knowledge and practice. The study raised concern about all aspects of tracheal suctioning and has highlighted the need for changes in practice, clinical guidelines and focused practice-based education.

Findings related to assessment of knowledge and practice in posttest regarding tracheostomy care .

Findings related to post test assessment of knowledge and practice shows that in post-test knowledge assessment majority of the participants 43 (71.7%) were having adequate knowledge, 17 (28.3%) were having moderately adequate knowledge and none of the participants were having inadequate knowledge. Whereas in post-test practice assessment majority of the participants 46 (76%) were having adequate practice, 14 (23.3%) were having moderately adequate practice and none of the participants were having inadequate practice.

The mean posttest knowledge score is 23.20 with mean percentage 77.33%, median 24, mode 24, and standard deviation was 2.84. Whereas the mean posttest practice score was 23.37 with mean percentage 77.9, median 24, mode 24 and standard deviation 2.87.

Findings related to effectiveness of planned teaching programme in terms of knowledge:

Effectiveness of planned teaching programme in terms of knowledge reveals that the mean post-test knowledge score 23.2 with mean percentage (77.33%) was greater than the mean pre-test knowledge score 15.12 with mean

percentage(50.04%). The mean difference between pre-test and post-test practice score was 8.08 with the mean percentage of (27.2%). Paired t calculated value is 31.41 * $p < 0.05$ is significant at 0.05% level. Hence hypothesis H₁ was accepted. This indicates that the planned teaching programme was found to be effective in increasing the knowledge of Staff nurse regarding tracheostomy care.

Findings related to effectiveness of planned teaching programme in terms of practice:

Effectiveness of planned teaching programme in terms of practice reveals that the mean post-test practice score 23.67 with mean percentage(78.9%) was greater than the mean pre-test practice score 16.38 with mean percentage(54.6%). The mean difference between pre-test and post-test practice score was 1.28 with the mean percentage of (24.26%). Paired t calculated value is 28.08 * $p < 0.05$ is significant at 0.05% level. Hence hypothesis H₂ was accepted. This indicates that the planned teaching programme was found to be effective in increasing the practice of Staff nurse regarding tracheostomy care.

This indicates that the planned teaching programme was found to be effective in increasing the knowledge and practice of Staff nurse regarding tracheostomy care .

The findings were consistent with the similar study conducted using a quantitative (pre-experimental) research design with “one group pre-test post-test research design to assess the level of knowledge regarding tracheostomy care among the staff nurses. The sample comprised of 60 staff nurses working in selected areas of the hospital. Stratified simple random sampling technique was used for the study. The tool utilized for the data collection was structured knowledge questionnaire. Results shows that The obtained data were analyzed by using the descriptive and inferential statistics. The mean post-test knowledge score (39.47) was significantly higher than the mean pre-test knowledge score (24.10) with the mean difference (15.37). There was a significant difference between pre-test and post-test knowledge score at $p < 0.05$. The results of the study revealed that the planned teaching program was significantly effective in improving the knowledge of staff nurses. The study concluded that Staff nurses were having inadequate knowledge and structured teaching programme was effective in enhancing their knowledge regarding tracheostomy care.

The findings were also consistent with the similar study conducted on evaluate the effectiveness of teaching programme on care of patients with burns in the burns unit of Main university, emergency hospital in El-Mansoura,Iraq.100 burn patients were selected through convenient sampling method; who were divided randomly into two equal groups; a study group for application of intervention and a control group to receive the routine management of the hospital. Data was collected using interview questionnaire and the Brief Burn Specific Health Scale. A rehabilitation program with a teaching programme was provided to the study group patients, while the control group received routine hospitals nursing management. The programme effectiveness was evaluated through a post test done for both groups. After implementation of teaching programme, the knowledge scores improved in both groups; the magnitude of change was much lower in the control group compared to those in the study group. The study concludes that the information given through teaching programme proved beneficial in improving the knowledge on burns.

Findings related to association between pre-test knowledge and practice score and selected demographic variables:

Findings related to association shows that, with respect to the pretest knowledge score and selected demographic variables it was found to have significant association with area of working and frequency of tracheostomy care you give in a month. Whereas with respect to the pretest practice score and selected demographic variables it was found to have significant association with only one variable that is area of working. Hence we conclude the hypothesis H₃ is partially accepted.

V. CONCLUSION

The present study was conducted to assess the effectiveness of planned teaching programme on knowledge regarding tracheostomy care among Staff nurse. The following conclusions were made on the basis of the findings of the study. It also brought out the limitations of the study in picture.

The knowledge score of the Staff nurse regarding tracheostomy care before the administration of planned teaching programme was low (Mean percentage 50.04%). The planned teaching programme significantly increased the knowledge of Staff nurse in post test (Mean percentage 77.33%). The mean difference between pre-test and post-test score was 8.08 with the mean percentage of (27.2%). Paired t calculated value is 31.41 * $p < 0.05$ is significant at 0.05% level. This indicates that the planned teaching programme was found to be effective in increasing the knowledge of Staff nurse regarding tracheostomy care .

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