



# “A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE OF RESPIRATORY HEALTH ASSESSMENT AMONG NURSING STUDENTS OF SELECTED NURSING COLLEGE NAINITAL.”

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## ABSTRACT

**Background:** The ability to carry out and document a full respiratory assessment is an essential skill for all nurses. At times a more focused assessment of the respiratory system is necessary. And, as with any other system, knowing possible symptoms and how to focus the interview and physical assessment are important skills for nursing students to have. Respiratory assessment is performed as part of a physical examination, or when a patient present with a respiratory problem (dyspnoea, cough, chest pain) or history of the lungs. In the respiratory assessment, the patient is asked to sit upright on an examination table with arms at the side. Patient is asked to expose his or her chest.

**Aim:** To assess the effectiveness of structured teaching program on knowledge of respiratory health assessment among nursing students of selected nursing college Nainital.

**Design:** An pre experimental research design was adopted for the study.

**Setting:** The present study was conducted in selected nursing college of Nainital.

**Method:** Data was collected by using self-structured knowledge questionnaire on knowledge regarding respiratory health assessment among nursing students. The tool was developed in two parts, demographic variables and the second part knowledge questions on respiratory health assessment. Collected data was analyzed by using descriptive and inferential statistics.

**Results:** Result of the study related to knowledge level regarding respiratory health assessment among GNM2nd year students, 2 students have poor knowledge followed by 32 students have average knowledge and 6 students have good knowledge in pre- test knowledge. 0 students have poor knowledge followed by 3 students having average knowledge and 37 students have good knowledge in post- test knowledge regarding respiratory health

assessment. There was non-significant association of demographic variables. This fact confirms that demographic variables are not affects student's knowledge all the variables.

**Conclusion:** The study concluded that structured teaching programme was effective in increasing the knowledge regarding respiratory health assessment among nursing students of selected nursing college Nainital.

**Key words:** Assessment, Structured Teaching Program, regarding respiratory health assessment, nursing students.

**Introduction:** "Breath is symbol of life, deeper the breath greater the victory of life over threatening irritants". During a respiratory assessment, a nursing student will use skills of inspection, palpation, percussion, and auscultation. This article with 9 Helpful Tips for Performing a Nursing Health Assessment of the Respiratory System will help you in your practice. "The respiratory assessment is a key component to nursing skill and care," says Registered Nurse and academic, Jessica Stokes-Parish."It is fundamental to a good nursing assessment and should be a part of your suite of skills. It takes time to develop, and should be a priority area of skill development. The respiratory assessment has conventionally been split into different stages, position of the person and the environment.

Inspection of the person and respiratory effort.

Palpation of the person's anterior and posterior chest.

Percussion of the person's anterior and posterior chest wall.

Auscultation of the person's anterior and posterior chest walls.

One method to remember the steps of the examination is through the mnemonic PIPPA.

**INSPECTION:** Inspect the chest for size, shape, symmetry and excursion

**PALPATION:** Palpation is useful in assessing for tracheal position, tenderness and crepitus, chest excursion and tactile fremitus. Use light palpation to assess surface characteristics of the chest such as temperature, turgor, and moisture, as well as to identify tenderness, masses or crepitus Palpate from the anterior, posterior and lateral approaches

**PERCUSSION:** Percussion is used to assess the density of underlying lung tissue. It allows to determine if the tissue is predominantly solid or filled mainly with air or fluid. It also enables to identify the extent of the lung fields and is useful in assessing the diaphragmatic excursion, the distance diaphragm moves from expiration to inspiration. Percuss the entire anterior and posterior thorax in a systematic manner, moving from apex to base and comparing side to side. The normal percussion note over adult lung fields is called resonance, small children will percuss more hyper-resonant.

**AUSCULTATION:** Use auscultation to assess airflow through the upper airways and lungs. Listen with the diaphragm of the stethoscope. Note normal, abnormal and adventitious breath sounds, as well as abnormal vocal sounds. Auscultation sites are the same as for percussion.

**Statement of the problem:** A study to assess the effectiveness of structured teaching programme on knowledge of respiratory health assessment among nursing students of selected nursing college Nainital.

### **Objectives:**

- To assess the pre-test knowledge of respiratory health assessment among nursing students of selected college of nursing Nainital.
- To prepare the structured teaching programme on respiratory health assessment.
- To assess the post- test knowledge of respiratory health assessment among nursing students of selected college of nursing Nainital.
- To associate the significant relationship between demographic variables and knowledge of nursing students regarding respiratory health assessment.

### **Hypothesis:**

- **H1-** There is a significant difference between pre-test and post-test knowledge regarding respiratory health assessment among nursing students.
- **H2-** There will be significant association between demographic variables and knowledge regarding respiratory health assessment among nursing students.

### **ASSUMPTIONS:**

- Students have some knowledge regarding respiratory health assessment.
- Students may have some doubts regarding respiratory health assessment.
- Students will be able to gain knowledge regarding respiratory health assessment.

**Material and method:** Research approaches are plan and procedure for research that span the step from board assumption to detailed methods of data collection, analysis and interpretation. The present study adopted pre experimental research design as it was considered most suitable for study. Research design is a blue print for collection, measurement and analysis of data. 40 subjects were selected through purposive sampling technique. The setting of the study was selected nursing college of Nainital.

The tool consists of socio demographic variables and self-structured knowledge questionnaire. The content validity of the tool was obtained from the experts in nursing field. Feasibility of the study was confirmed by pilot study. The data was organized, analyzed and interpreted in terms of the study objectives. The data was summarized and tabulated by using descriptive statistics (Mean, Percentage, Standard Deviation) and inferential Statistics (Paired<sup>t</sup> test, Chi-square and Chi-square with Yates correction, Fisher exact).

### Research variables:

**Independent variable:** Structure teaching program

**Dependent variable:** Knowledge

## SECTION- 1

### DISTRIBUTION OF DEMOGRAPHIC VARIABLES

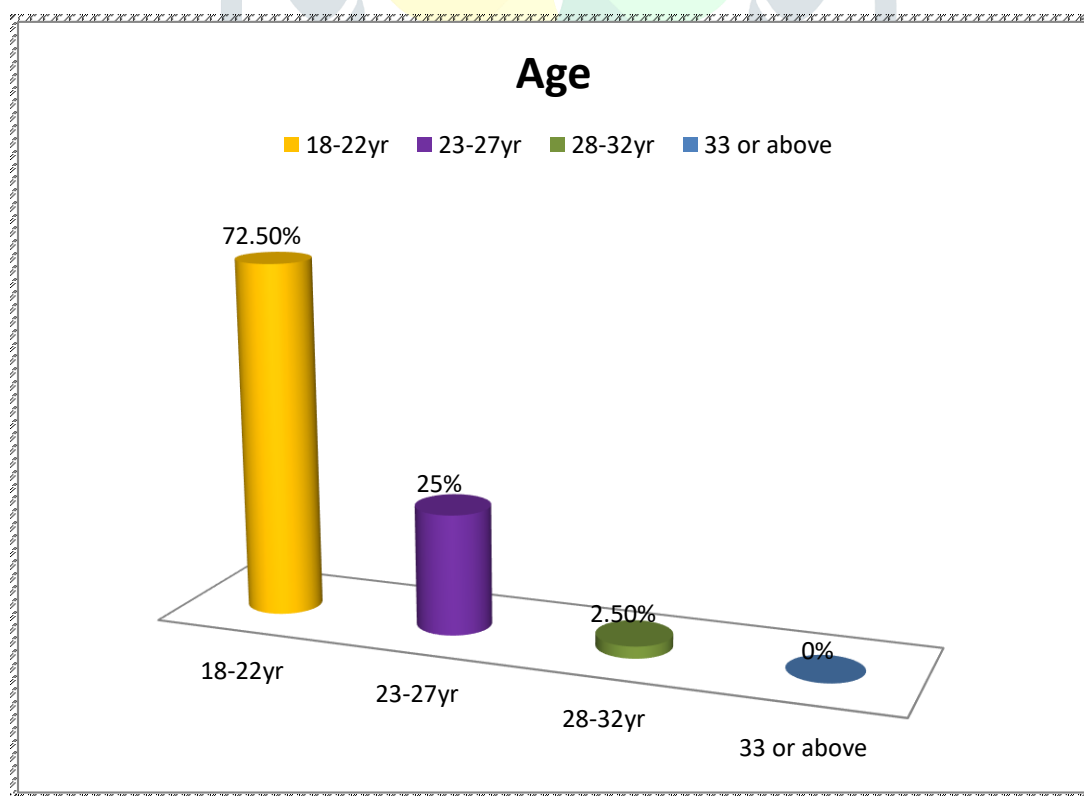
**Table1: Percentage distribution of the age of selected nursing students**

N=40

S. No.	Demographic variables	Frequency	Percentage
1.	Age:		
	18yr – 22yr	29	72.50%
	23yr – 27yr	10	25%
	28yr – 32yr	01	2.5%
	33yr or above	00	0%
2.	Marital status:		
	Single	37	92.5%
	Married	03	7.5%
	Widowed	00	0%
	Divorced	00	0%

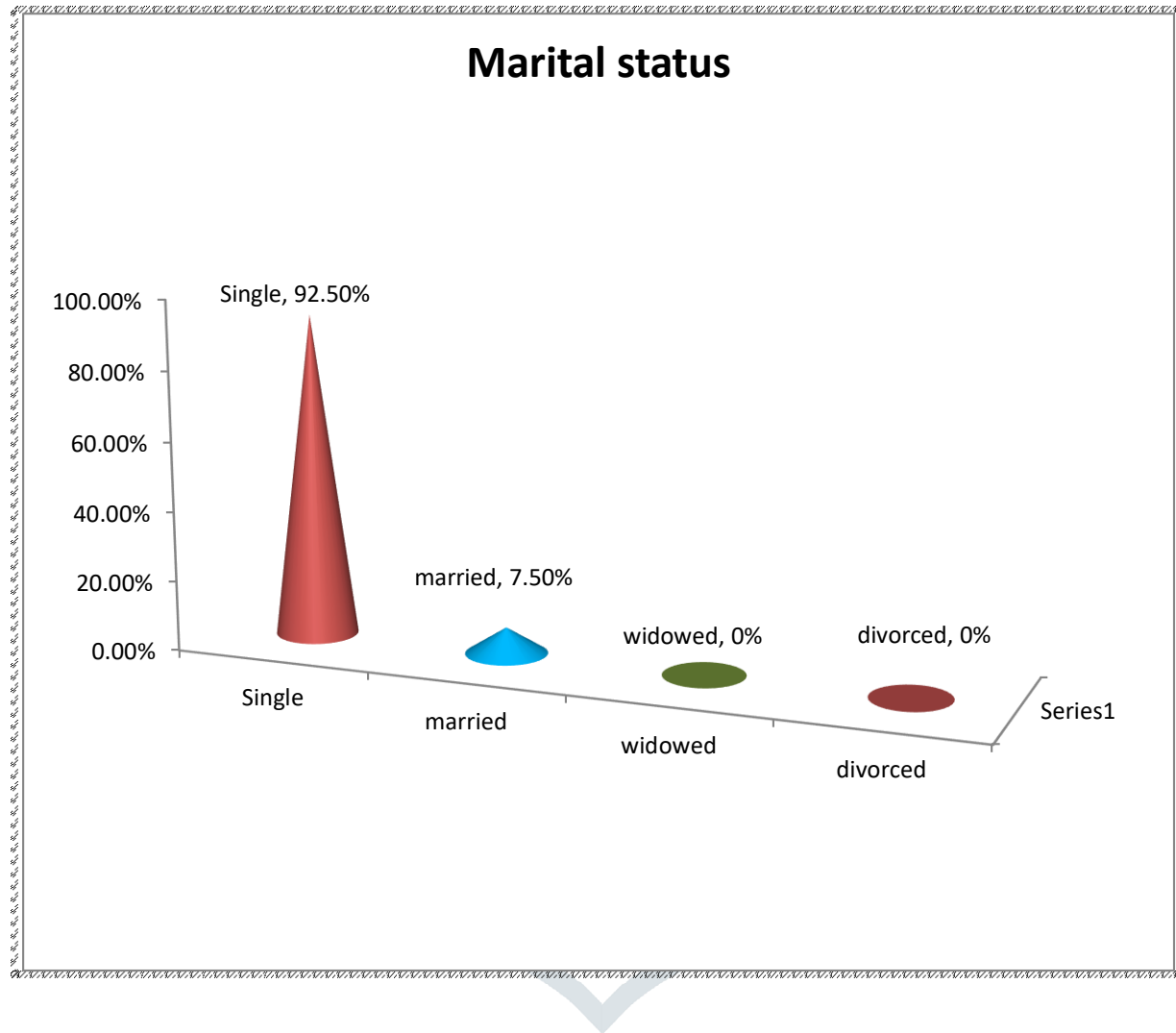
3.	Family type:		
	Nuclear	28	70%
4.	Residential area:		
	Hostel	21	52.5%
5.	Home	19	47.5%
	Previous knowledge:		
	No	03	7.5%
	Yes	37	92.5%

### FREQUENCY AND PERCENTAGE OF SAMPLE SUBJECT BY THEIR AGE



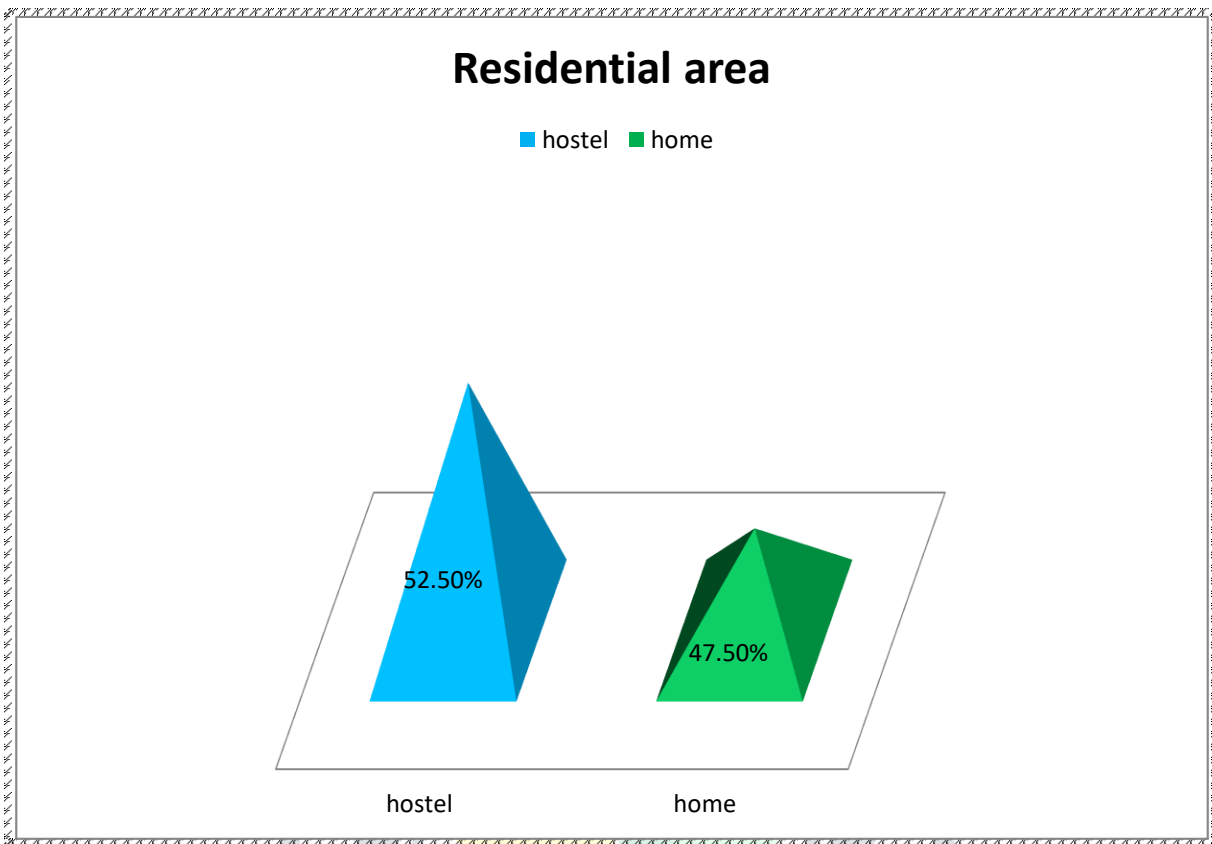
**Fig. 2** shows percentage distribution students according to age. 72.5% of student's were in the age group of 18 – 22, 25% of students were in the age group of 23 – 27, 2.5% of students were in the age group of 28 – 32, 0% of students were in the age group of 33 or above.

## FREQUENCY AND PERCENTAGE DISTRIBUTION OF SAMPLE SUBJECT BY THEIR MARITAL STATUS



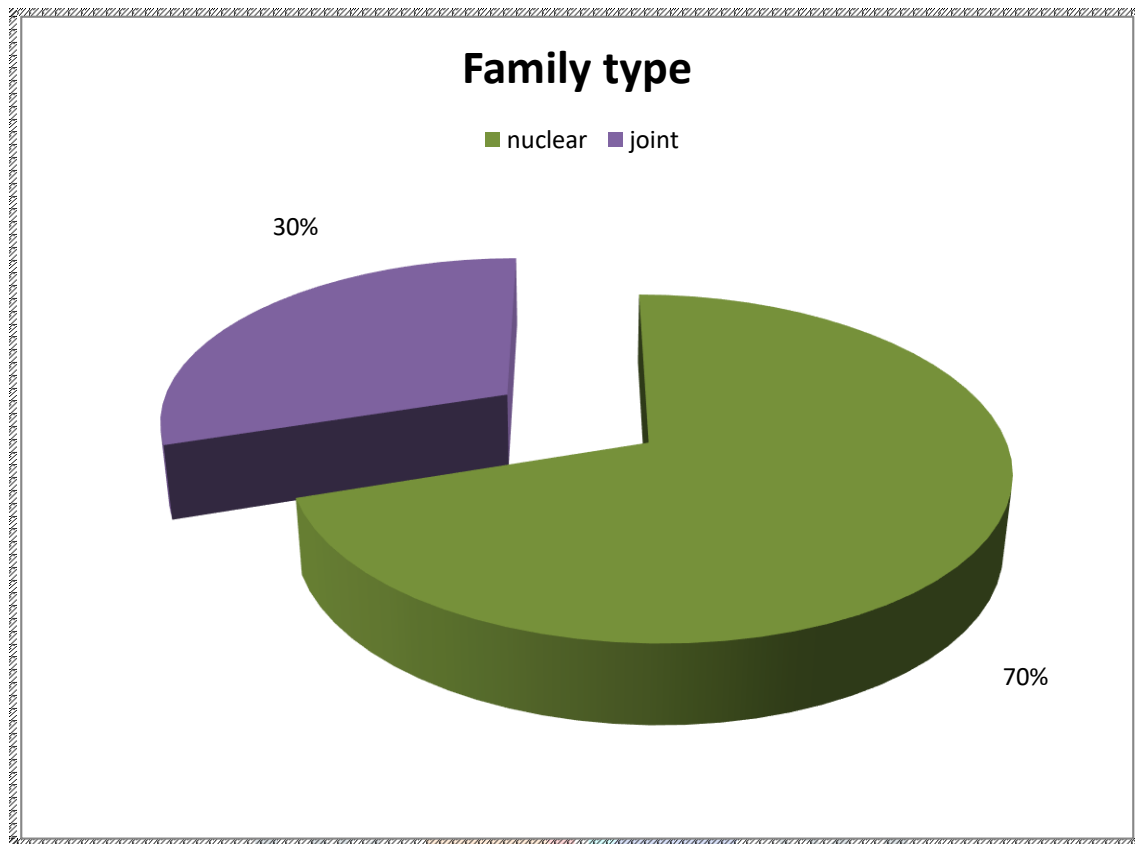
**Fig: 3** shows percentage distribution of students according to marital status. 92.5% students were unmarried, 7.5% students were married, the percentage of both divorced and widowed were 0%.

## FREQUENCY AND PERCENTAGE DISTRIBUTION OF SAMPLE SUBJECT BY THEIR RESIDENTIAL AREA



**Fig: 5** shows percentage distribution of GNM 2<sup>ND</sup> year students according to residential area. 52.5% students are living in hostel and 47.5% students are living in home.

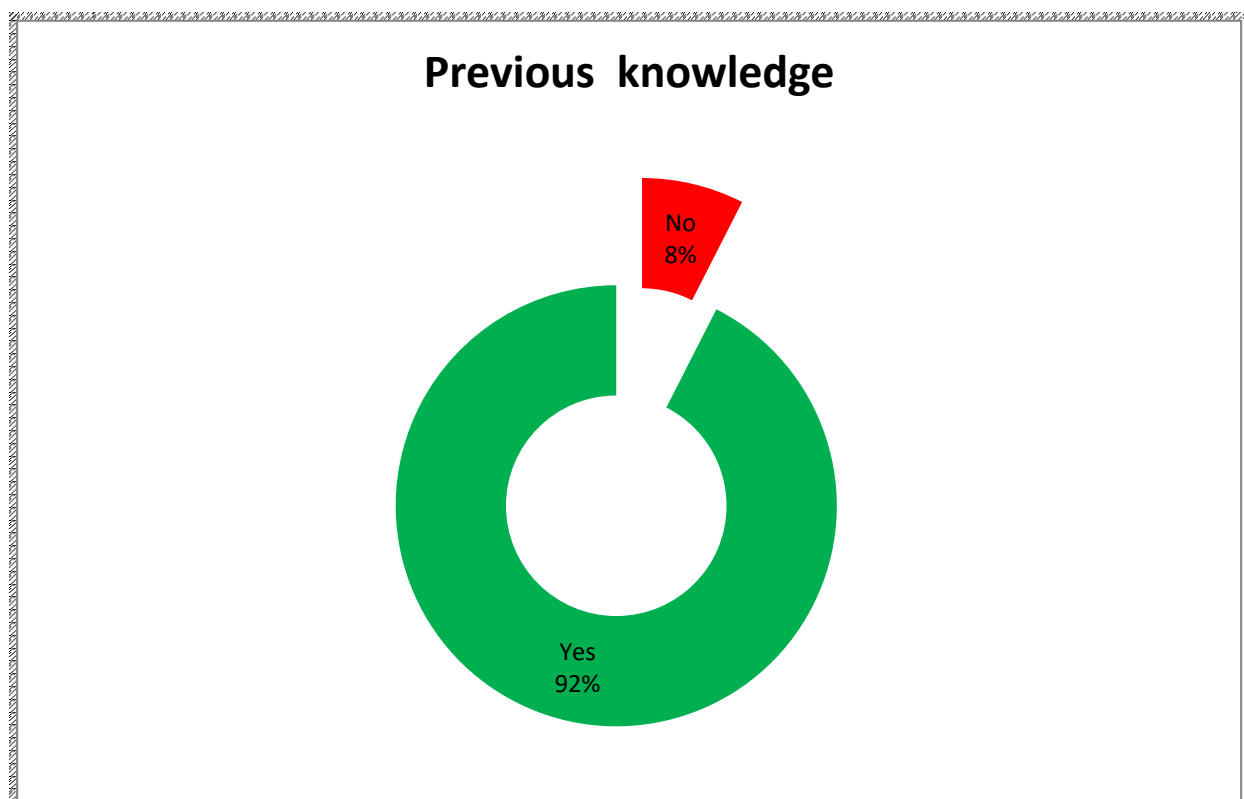
## FREQUENCY AND PERCENTAGE DISTRIBUTION OF SAMPLE SUBJECT BY THEIR FAMILY TYPE



**Fig: 4** shows percentage distribution of students according to family type. 70% students belong to nuclear family and 30% students belongs to joint family.



## FREQUENCY AND PERCENTAGE DISTRIBUTION OF SAMPLE SUBJECT BY THEIR PREVIOUS KNOWLEDGE



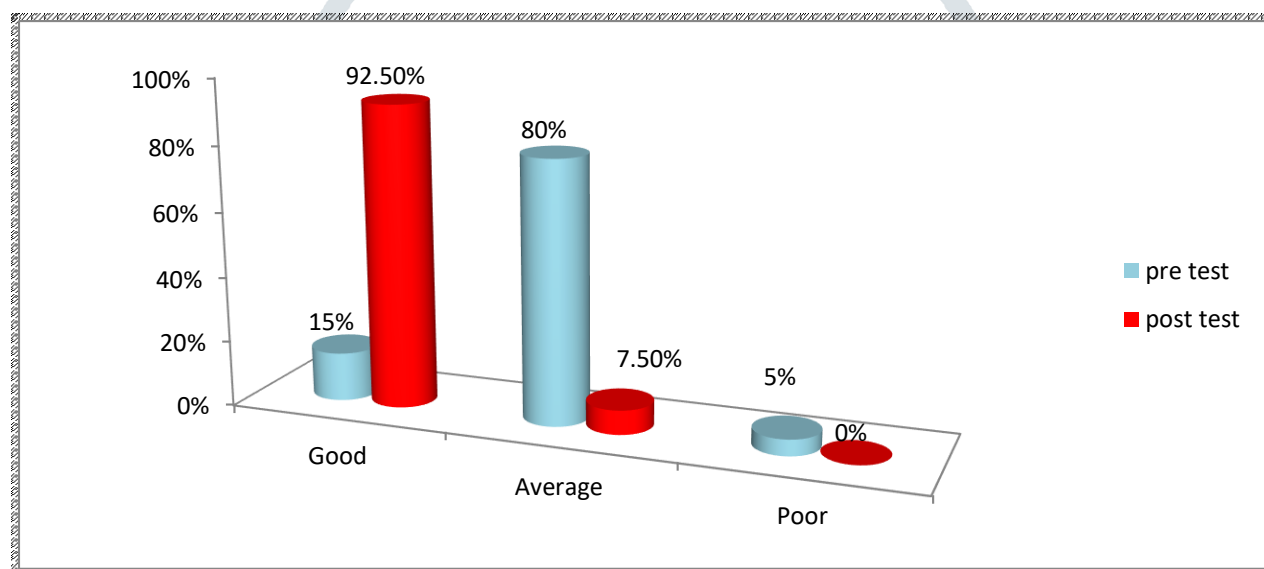
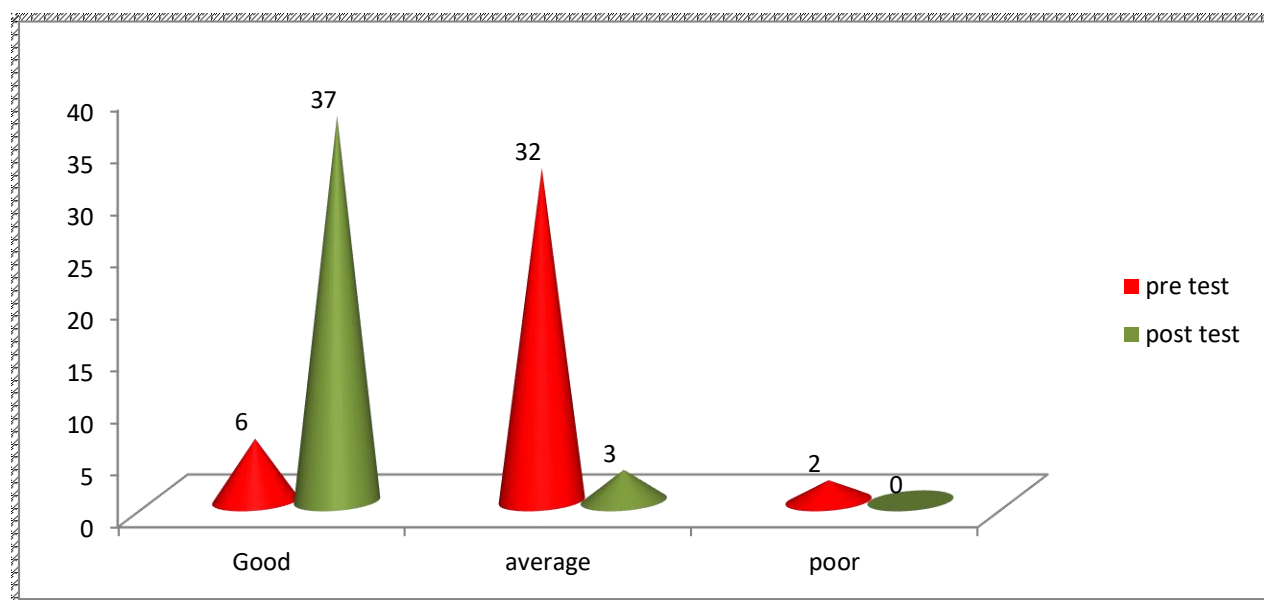
**Fig: 6** shows percentage distribution of GNM 2<sup>ND</sup> year students according to their previous knowledge. 7.5% students have no any previous knowledge and 92.5% students have previous knowledge about respiratory health assessment.

## Section '2': Assessment of pre-test &amp; post-test knowledge of sample subject

TABLE-4 Frequency &amp; percentage distribution according to level of pre-test &amp; post-test knowledge of students:

N=40

Level of knowledge	Pre-test		Post-test	
	FREQUENCY (y)	PERCENTAGE (E)	FREQUENCY (y)	PERCENTAGE (E)
Good (21-30)	06	15%	37	92.5%
Average (11-20)	32	80%	03	7.5%
Poor (0-10)	02	5%	00	0%



**Fig: 7 (frequency) and Fig: 8 (percentage)** shows level of knowledge of students, in pre- test 6 (15%) students have good knowledge, 32 (80 %) student have average knowledge and 2 (5%) students have poor knowledge. In post- test 37(92.5%) students have good knowledge, 3 (7.5%) student have average knowledge.

### SECTION-3 EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME REGARDING KNOWLEDGE OF RESPIRATORY HEALTH SYSTEM AMONG GNM2nd YEAR STUDENTS.

TABLE-5

N-40

Test	Mean	Std. Deviation	Mean Difference	% Confidence Interval of the Difference		t-test	P-Value Sig (2-tailed)
				LOWER	UPPER		
Pre- test score	17.35	3.48	6.45	7.92	4.97	8.83	2.02
Post- test score	23.8	2.73				DF=39	

Level of significance of **P<0.05**

The table reveals that post- test mean for knowledge score is significantly higher than the pre- test mean score. The statistical paired 't' test for knowledge score is found to be 8.83.

**SECTION-4**

**Association between the knowledge levels of 2nd year students of GNM with demographic variable:**

**TABLE-6**

N=40

<b>Demographic variables:</b>	<b>Good</b>	<b>Average</b>	<b>Poor</b>	<b>Degree of freedom</b>	<b>X<sup>2</sup></b>	<b>P value</b>	<b>Significant</b>
	<b>f</b>	<b>F</b>	<b>F</b>				
<b>Age:</b>							
18-22 year	4	24	1	6	1.385	12.59	NS
23-27 year	2	7	1				
28-32 year	0	1	0				
33 or above	0	0	0				
<b>Marital status: Single</b>			2	6	1.450	12.59	NS
Married	5	30	6				
Widowed	1	2	0				
Divorcee	0	0	0				
	0	0					
<b>Family type:</b>							
Nuclear	4	23	1	2	0.465	5.99	NS
Joint	2	9	1				

<b>Residential area:</b>							
Hostel							
Home	4	17	0	2	2.69	5.99	NS
	2	15	2				
<b>Previous knowledge:</b>							
Yes							
No	6	29	2	2	0.8102	5.99	NS
	0	3	0				

LEVEL OF SIGNIFICANCE  $P < 0.05$

NS- NON SIGNIFICANT

**DICUSSION:** The study results showed that majority revealed that majority of 72.5% of students were in the age group of 18-22 years followed by 25% were in age group of 23-27 years and 2.5% in the age group of 28-32 years and 0% were in age group of 32 and above. The data revealed that majority of single is 92.5%, married is 7.5%, widowed is 0% and divorcee is 0%. The data revealed that majority of nuclear family is 70% and joint family is 30%. The data revealed that majority of 52.5% of students are hostellers and 47.5% are day scholars. The data revealed that majority of 92.5% students says yes and 7.5% says no. The finding related to knowledge of respiratory health assessment among nursing students is 15% good, 80% average and 5% poor in pre-test results. The finding related to knowledge of respiratory health assessment among nursing students is 92.5% good, 7.5% is average in post –test results. The finding related to knowledge level regarding respiratory health assessment among nursing students is good (21-30) is 15%, average (11-20) is 80% and poor (0-10) is 5% in pre-test results and good (21-30) is 92.5%, average(11-20) is 7.5% in post-test knowledge. Pre-test mean is **17.35** is less than post-test mean that is **23.8**. Standard deviation of pre-test is greater than the post test. The paired t-test which is more than the table value at the level of significance  $p < 0.05$  the calculated value is significance shows that hypothesis H1 is accepted.

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