Research Paper

A Study To Assess The Level Of Knowledge Regarding Hospital Acquired Pneumonia Among Staff Nurses At Smvmch, Puducherry.

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ABSTRACT
Pneumonia is an inflammatory condition of the lung primarily affecting the small air sacs known as alveoli. Symptoms typically include some combination of productive or dry cough, chest pain, fever, and difficulty breathing. The severity of the condition is variable.
Main symptoms of infectious pneumonia People with infectious pneumonia often have a productive cough, fever accompanied by shaking chills, shortness of breath, sharp or stabbing chest pain during deep breaths, and an increased rate of breathing. In elderly people, confusion may be the most prominent sign. The typical signs and symptoms in children under five are fever, cough, and fast or difficult breathing. Fever is not very specific, as it occurs in many other common illnesses and may be absent in those with severe disease, malnutrition or in the elderly. In addition, a cough is frequently absent in children less than 2 months old. More severe signs and symptoms in children may include blue-tinged skin, unwillingness to drink, convulsions, ongoing vomiting, extremes of temperature, or a decreased level of consciousness.

I. INTRODUCTION
" Take care of patient and everything else will follow you "

-Thomas First

Pneumonia is defined as new lung infiltrates plus clinical evidence that the infiltrate is of an infectious origin which include the new onset of fever, purulent sputum, leukocytosis, and decline in oxygenation.

Hospital-acquired pneumonia (HAP) or nosocomial pneumonia is a lower respiratory infection that was not incubating at the time of hospital admission and that presents clinically 2 or more days after hospitalization. Pneumonia that presents sooner should be regarded as community- acquired pneumonia. VAP refers to nosocomial pneumonia that develops among patients on ventilators. [2, 1] Ventilator-associated pneumonia (VAP) is defined as pneumonia that presents more than 48 hours after endotracheal intubation.Pneumonia is defined as new lung infiltrates plus clinical evidence that the infiltrate is of an infectious origin which include the new onset of fever, purulent sputum, leukocytosis, and decline in oxygenation.Hospital acquired pneumonia or nosocomial pneumonia, is a lower respiratory infection that was not incubating at the time of hospital admission and that presents clinically two or more days after hospitalization. Pneumonia that presents sooner should be regarded as community- acquired pneumonia. VAP refers to nosocomial pneumonia that develops among patients on ventilators.

Ventilator associated pneumonia (VAP) is defined as pneumonia that presents more than 48 hours after endotracheal intubation.HAP like any other pneumonia results when microbes penetrate the normally sterile lower respiratory tract overwhelm local host defenses and establish infection. Although pathogens are most often introduced in aspirated oropharyngeal secretions they may enter the lung hematogenously in patients with bacteremia. Intubated patients develop VAP as a direct consequence of the endotracheal tube acting as a foreign body that bypasses key barriers to infection. VAP ultimately results from varying degrees of aspiration of secretions pooled above the endotracheal tube cuff and/or direct inoculation from the biofilm that forms on the endotracheal tube surface.

II.   REVIEW OF LITERATURE

Anita Rae Modi (2020) Hospital-acquired pneumonia (HAP) and ventilator-associated pneumonia (VAP) cause significant inpatient morbidity and mortality. They are especially challenging to diagnose promptly in the intensive care unit because a plethora of other causes can contribute to clinical decline in complex, critically ill patients. The authors describe the diagnosis, management, and prevention of these diseases based on current guidelines and recent evidence.

Antoni Torres(2018) The International ERS/ESICM/ESCMID/ALAT guidelines for the management of hospital-acquired pneumonia and ventilator-associated pneumonia were published in 2017 whilst the American guidelines for Management of Adults With Hospital-acquired and Ventilator-associated Pneumonia were launched in 2016 by the Infectious Diseases Society of America/ATS. Both guidelines made updated recommendations based on the most recent evidence sharing not only some parallelisms but also important conceptual differences.

STATEMENT OF THE PROBLEM
The Study to assess the level of knowledge regarding the hospital acquired pnemonia among the staff nurses in SMVNCH at puducherry.

OBJECTIVES
● To assess the level of knowledge regarding hospital acquired pnemonia by the staff nurses.
● To assess the knowledge between the staff nurses at the hospital.

ASSUMPTION:
● The staff nurses will have the favorable level of knowledge regarding the hospital acquired pnemonia.
● The tool prepared for the study will be sufficient for assessing the knowledge of the staff nurses regarding the hospital acquired pnemonia.

III.   MATERIALS AND METHODS

RESEARCH APPROACH:
Research approach is the basic procedure for conducting the study. A quantitative research approach was adapted for this study.

RESEARCH DESIGN:
Research design is an investigator's overall plan for obtaining answers to the research questions and it spells out strategies that the researcher adopted to develop information that is accurate, objective and interpretable. A descriptive Research Design was adapted for this study.

POPULATION:
The population is referred to as a group of all the elements like individuals or objects that are available in the same geographical area. The target population for this study comprises of staff nurses at SMVMCH, Puducherry.

SETTING OF THE STUDY:
The study was conducted at, SMVMCH, Puducherry.

SAMPLE:
The sample for the study comprises of staff nurses at SMVMCH, Puducherry.

SAMPLE SIZE:
The sample size consists of 30 people.

SAMPLING TECHNIQUE:
Sampling technique is defined as the process of selecting a group of people or the other elements with which conduct a study. Convenient sampling technique is used for the present study.

SETTING OF THE STUDY:
The study was conducted in SMVMCH, Puducherry

CRITERIA FOR SAMPLE SELECTION:

Inclusion criteria:
- Staffnurses who are working in the SMVMCH .
- People who are willing to participate in the study.

Exclusion criteria:
- Staff nurses who are not willing to participate in the study.

STUDY VARIABLES:
Independent variable:
Age, , Religion, Education, Occupation, Marital status, Type of family , Residence, PPE, co-morbid disease , knowledge about hospital acquired pnemonia.

Dependent variable:
Level of knowledge regarding hospital acquired pnemonia by the staff nurses at SMVNCH , puducherry.

IV.   RESULTS

Majority of the staff nurse 11(36.7%) of study population were in the age group are 25-35 years. Majority of the staff nurse were male16(53.3%). Majority of the staff nurse were Hindu 18(60%). Majority of the staff nurse 11(36.7%) of Educational status were B.Sc., (N). Majority of the staff nurse were Urban 11(36.7%). Majority of the staff nurse were 6 year of experience 14(46.7%)The level of knowledge regarding hospital acquired pneumonia among staff nurse. Majority of staff nurse 17(56.7%) had moderate and 13(43.3%) had adequate level of knowledge and the mean and standard deviation of the level of knowledge regarding hospital acquired pneumonia among staff nurse is 19.87+3.235.The other demographic variable had not shown statistically significant association between the level of knowledge regarding hospital acquired pneumonia among staff nurse with selected demographic variables respectively.   A study to assess the level of knowledge regarding the hospital accqired pneumonia among the staff nurses at SMVNCH, Puducherry.
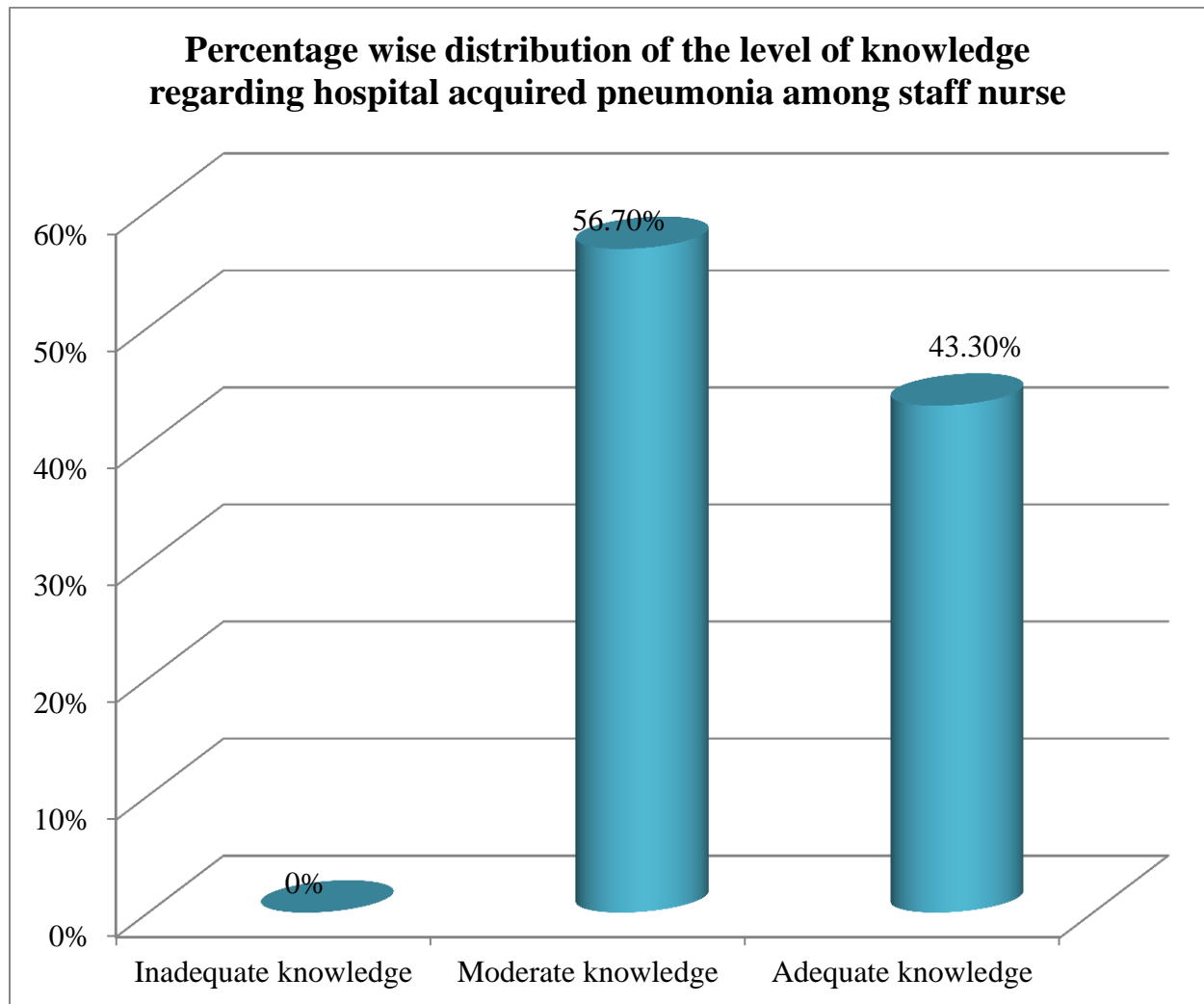
Assessment of the level of knowledge regarding hospital acquired pneumonia among staff nurse.
Frequency and percentage wise distribution of the level of knowledge regarding hospital acquired pneumonia among staff nurse.

(N=30)

LEVEL OF KNOWLEDGE	FREQUENCY (n)	PERCENTAGE (%)
Inadequate knowledge	0	0
Moderate knowledge	17	56.7
Adequate knowledge	13	43.3
Total	**30**	**100**
Mean+Standard deviation	19.87+3.235	

Assessment of the level of knowledge regarding hospital acquired pneumonia among staff nurse

Percentage wise distribution of the level of knowledge regarding hospital acquired pneumonia among staff nurse

Association between the level of knowledge regarding hospital acquired pneumonia among staff nurse with selected demographic variables.

Association between the level of knowledge regarding hospital acquired pneumonia among staff nurse with selected demographic variables

						(N=30)
SL. NO	DEMOGRAPHIC VARIABLES	LEVEL OF KNOWLEDGE				Chi-square X^2 and P-Value
		MODERATE		ADEQUATE		
		N	%	N	%	
1	Age					$X^2=8.57$ Df=3 p =0.035 *S
	20-25 age	8	47.1	0	0	
	25-35 age	5	29.4	6	46.2	
	35-45 age	2	11.8	3	23.1	
	45 above	2	11.8	4	30.7	
2	Gender					$X^2=0.002$ Df=1 p =0.961 NS
	Male	9	52.9	7	53.8	
	Female	8	47.1	6	46.2	

3	Religion					X^2=3.41 Df=3 p =0.332 NS
	Hindu	10	58.8	8	61.5	
	Muslim	2	11.8	4	30.8	
	Christian	3	17.6	1	7.7	
	Others	2	11.8	0	0	
4	**Educational status**					**X^2=12.01 Df=3 p =0.007 *S**
	ANM	1	5.9	5	38.4	
	GNM	1	5.9	4	30.8	
	B.Sc., (N)	10	58.8	1	7.7	
	M.Sc., (N)	5	29.4	3	23.1	
5	**Residential area**					X^2=0.403 Df=2 p =0.817 NS
	Urban	7	41.2	4	30.8	
	Rural	5	29.4	4	30.8	
	Semi urban	5	29.4	5	38.4	
	Tribal	0	0	0	0	
6	**Year of experience**					**X^2=9.54 Df=3 p =0.023 *S**
	3 years	4	23.5	0	0	
	5 years	1	5.9	5	38.4	
	6 years	10	58.8	4	30.8	
	15 years	2	11.8	4	30.8	
7	**Types of family**					X^2=2.32 Df=3 p =0.508 NS
	Nuclear family	11	64.7	6	46.1	
	Joint family	3	17.6	4	30.8	
	Step family	1	5.9	0	0	
	Extended family	2	11.8	3	23.1	
8	**Family status**					X^2=0.002 Df=1 p =0.961 NS
	Poor economic status	8	47.1	6	46.2	
	Middle class	9	52.9	7	53.8	
	Rich economic status	0	0	0	0	
9	**Numbers of siblings**					X^2=0.903 Df=3 p =0.825 NS
	None	5	29.4	4	30.8	
	1	3	17.6	4	30.8	
	2	5	29.4	3	23.1	
	3	4	23.6	2	15.3	
10	**Marital status**					X^2=0.362 Df=1 p =0.547 NS
	Unmarried	11	64.7	7	53.8	
	Married	6	35.3	6	46.2	
	Divorced	0	0	0	0	
11	**Diet pattern**					X^2=0.814 Df=1 p =0.367 NS
	Vegetarian	8	47.1	4	30.8	
	Non-vegetarian	9	52.9	9	69.2	
12	**Income**					X^2=3.11 Df=2
	10,000	10	58.8	4	30.8	

	25,000	2	11.8	1	7.7	p =0.210 NS
	15,000	5	29.4	8	61.5	
	Below 10,000	0	0	0	0	
13	**Working experience in foreign countries**					X^2=0.814 Df=1 p =0.367 NS
	Yes	8	47.1	4	30.8	
	No	9	52.9	9	69.2	
14	**Comfortable language**					X^2=4.75 Df=3 p =0.191 NS
	Tamil	9	52.9	6	46.2	
	Hindi	1	5.9	1	7.6	
	Telugu	0	0	3	23.1	
	English	7	41.2	3	23.1	
15	**Nationality**					CONSTANT
	Indian	17	100	13	100	
	NRI	0	0	0	0	

-p < 0.05 significant, *-p < 0.001highly significant, NS-Non significant
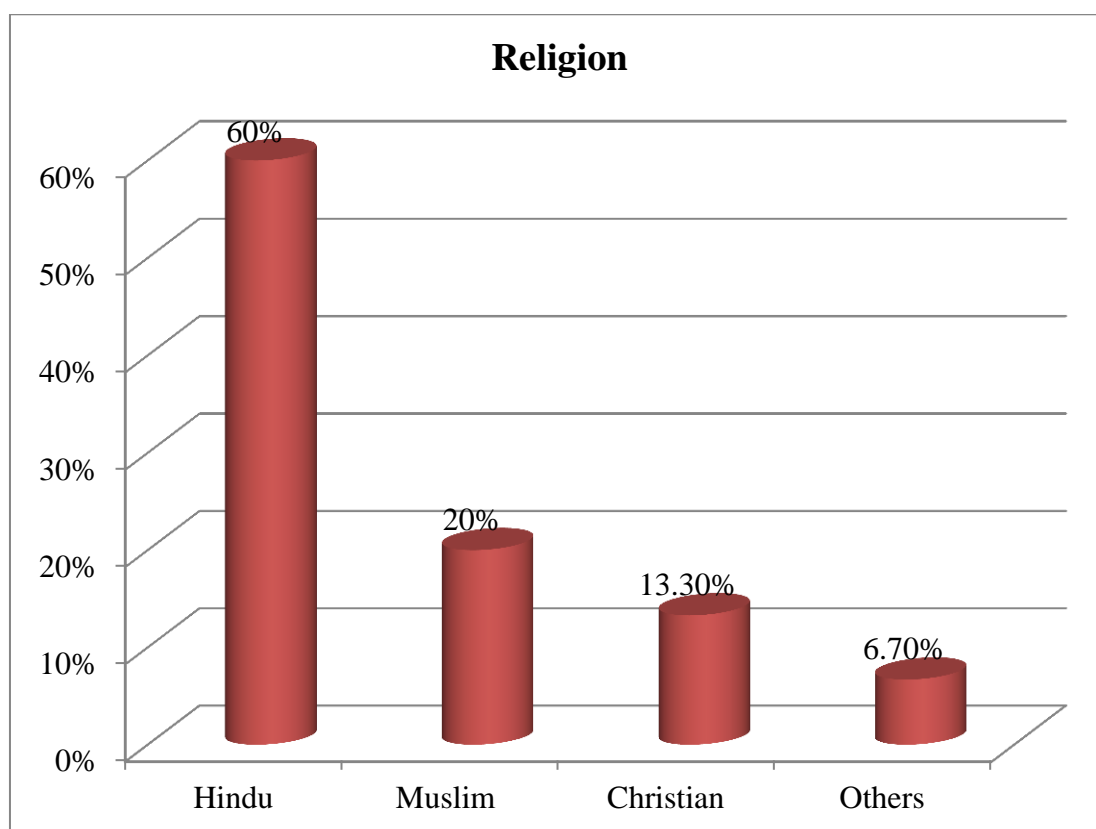
the demographic variable, ***Age, Educational status and years of experience*** had shown statistically significant association between the level of knowledge regarding hospital acquired pneumonia among staff nurse with selected demographic variables.

The other demographic variable had not shown statistically significant association between the level of knowledge regarding hospital acquired pneumonia among staff nurse with selected demographic variables respectively

V.   CONCLUSION AND RECOMMENDATIONS

Majority of the staff nurse 11(36.7%) of study population were in the age group are 25-35 years. Majority of the staff nurse were male16(53.3%). Majority of the staff nurse were Hindu 18(60%). Majority of the staff nurse 11(36.7%) of Educational status were B.Sc., (N). Majority of the staff nurse were Urban 11(36.7%). Majority of the staff nurse were 6 year of experience 14(46.7%)

The level of knowledge regarding hospital acquired pneumonia among staff nurse. Majority of staff nurse 17(56.7%) had moderate and 13(43.3%) had adequate level of knowledge and the mean and standard deviation of the level of knowledge regarding hospital acquired pneumonia among staff nurse is 19.87+3.235.

The other demographic variable had not shown statistically significant association between the level of knowledge regarding hospital acquired pneumonia among staff nurse with selected demographic variables respectively.

A study to assess the level of knowledge regarding the hospital accqired pneumonia among the staff nurses at SMVNCH, Puducherry.

NURSING IMPLICATIONS:
The study has implicated for nursing practice, nursing education, nursing administration and nursing research.

NURSING PRACTICE:
- This study emphasis in improving the knowledge of hospital accqired pneumonia through educative measures.
- More knowledge regarding symptoms of hospital accqired pneumonia will help for early identification of hospital accqired pneumonia in adolescents and adult.
- Questionnaire will help the client to increase the knowledge regarding of hospital accqired pneumonia
- Nurses' active participation in health program by providing direct and indirect care helps to achieve the goals of health service

NURSING EDUCATION:
- Nurse educator should emphasize more on preparing staff nurses for health information regarding hospital accqired pneumonia
- The study has clearly proved that questionnaire was helpful in identify the level of knowledge of staff nurses
- To practice this, nursing personal needs to be equipped with adequate knowledge and practice regarding questionnaire.
- The curriculum of nursing education should enable student nurse to equip themselves within the knowledge in severity in symptoms of hospital accqired pneumonia.

NURSING ADMINISTRATION:
- Nurse as an administrator should take limitation in formulating policies and protocols for health teaching.
- The nursing administration should motivate the subordinate for participating in various educational programs and improve their knowledge and skills.
- The administrator serves as a reserve's person for young nursing students, parents and staff nurses for proving guidance and counseling regarding hospital accqired pneumonia.
- The nurse administrator has given through questionnaire for awareness of symptoms in hospital accqired pneumonia.

NURSING RESEARCH:
- There is a good scope for nurse to conduct research in this area, to find out the effectiveness of various teaching strategy to educate the teachers and the parents
- The research study can be made by further implication of the study.
- Can be used for evidence based nursing practice as a rising trend.

VI.   RECOMMEDATIONS:
- The study can be conducted to assess the level of knowledge among the staff nurses.
- Comparative study can be done between the staff nurses.
- A quasi experimental study can be conducted with control group for the effective comparison
- Similar

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