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RESEARCH ARTICLE

A STUDY TO ASSESS THE KNOWLEDGE AMONG STAFF NURSES REGARDING VENTILATOR BUNDLE CARE AT SMVMCH, PUDUCHERRY

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ABSTRACT

Ventilator-associated pneumonia (VAP) refers to the development of parenchymal lung infection after a patient has undergone intubation and received mechanical ventilation (MV) for ≥ 48 hours. The Quantitative Research approach was used in this study. Pre-Experimental one group pre-test and post-test research design was selected for this study. The study population consists of all the staff nurses. Out of 300 samples in pre-test 24 (8%) of them had poor knowledge, 174 (58%) of them had average knowledge, 83 (27.7%) of them had good knowledge, 19 (6.3%) of them had Excellent knowledge. There was a significant association found between the level of knowledge and the selected demographic variable such as "monthly income" and "area of experience".

INTRODUCTION

Ventilator-associated pneumonia (VAP) refers to the development of parenchymal lung infection after a patient has undergone intubation and received mechanical ventilation (MV) for ≥ 48 hours. The main route for acquiring VAP is gross or micro aspiration of oropharyngeal organisms into the distal bronchi, either directly or secondarily by reflux from the stomach into the oropharynx. Other potential routes are less common, such as haematogenous carriage of microorganisms to the lung from remote sites of local infection (eg, catheter-related bloodstream infections or from the environment, especially from the hands of health care workers) or contaminated respiratory equipment, bronchoscopes, medical aerosols, water or air.

Need for the study

Ventilator-associated pneumonia (VAP) is a common infection in the ICU. Recent studies describe a rate of 1 to 4 cases per 1,000 ventilator-days, although this can reach up to 10 cases per 1,000 cases ventilator-days surgical patients. The improvement in outcomes associated with recent initiatives

suggest that many cases of VAP can be prevented by adhering to bundles of infection prevention measures. This prospective study was done on patients admitted to the Rajah Muthiah Medical College and Hospital Chidambaram during the period NOV 2014 to SEP 2016, who were on mechanical ventilation for more than 48 hours. Ventilator Associated Pneumonia (VAP) is one of the commonest infection in intensive care unit. VAP is associated with increased patient's mortality and morbidity. Knowledge about the incidence and risk factor is necessary to implement preventive measures to reduce mortality in these patients.

Statement of the problem

A study to assess the knowledge among staff nurses regarding ventilator bundle care at SMVMCH, Puducherry.

Objectives

- To assess the knowledge among staff nurses regarding ventilator bundle care
- To associate the pre-test level of knowledge regarding ventilator bundle care among staff nurses with their selected demographic variables.

Hypothesis

- There will be a significance difference in level of knowledge regarding ventilator bundle care.

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- There will be a significance association between the pre-test level of knowledge regarding ventilator bundle care among staff nurses with their selected demographic variable.

Research approach

Quantitative Research approach

Research design

Descriptive research design was selected for this study.

Population

The study population consists of all the staff nurses.

Sample

The staff nurse working at SMVMCH, who are fulfills the inclusion criteria.

Sample size

300 staff nurses

Sampling technique

Purposive sampling technique was used for this study.

Inclusion criteria

- Diploma and graduate nurses who are working in SMVMCH and are willing to participate in the study.

- Diploma and graduate nurses who used to work in intensive care unit but are currently working in general ward.
- Staff nurses who are working in SMVMCH hospital.
- Who are available during data collection.
- Both male & female nurse.
- Who are all on mechanical ventilation for more than 48 hours at SMVMCH.

Exclusion criteria

- Staff nurses who are working as administration level, ANM and Nursing assistant.
- Clients who were death after 48 hours
- Patients who are long-term or chronically ventilated

Frequency and percentage wise distribution of level of knowledge among staff nurses regarding ventilator bundle care

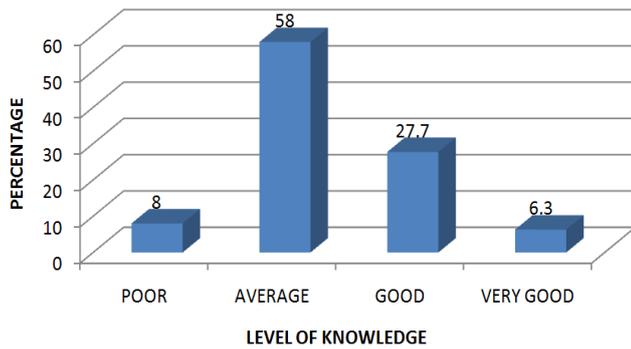
N=300			
S.NO	Level of knowledge	PRE-TEST	
		Frequency (n)	Percentage (%)
1	Poor (1-6)	24	8.0
2	Average (7-12)	174	58.0
3	Good (13-18)	83	27.7
4	Excellent (19-24)	19	6.3
Total		300	100

Out of 300 samples in pre-test 24 (8%) of them had poor knowledge, 174 (58%) of them had average knowledge, 83 (27.7%) of them had good knowledge, 19 (6.3%) of them hadExcellent knowledge.

Association of pre-test level of knowledge among staff nurses regarding ventilator bundle care with their selected demographic variables

S. NO.	Demographic variables	Poor		Average		Good		Very good		X ²	P value
		N	%	N	%	N	%	N	%		
1	Age_in_years									8.358	.499a,b
	20-24 years	9	3.0%	47	15.7%	17	5.7%	5	1.7%		
	25-29 years	11	3.7%	96	32.0%	56	18.7%	12	4.0%		
	30-34 years	4	1.3%	27	9.0%	9	3.0%	1	.3%		
2	Above 34 Years	0	0.0%	4	1.3%	1	.3%	1	.3%	4.888	.180a
	Sex										
3	Male	5	1.7%	18	6.0%	10	3.3%	0	0.0%	28.921	.000a,*
	Female	19	6.3%	156	52.0%	73	24.3%	19	6.3%		
	Monthly_Income										
4	UptoRs 7000	2	.7%	13	4.3%	2	.7%	1	.3%	4.996	.172a
	Rs7001 - Rs10000/-	20	6.7%	96	32.0%	34	11.3%	4	1.3%		
	Above Rs10000	2	.7%	65	21.7%	47	15.7%	14	4.7%		
5	Professional_Qualification									4.622	.593a,b
	DGNM	3	1.0%	24	8.0%	6	2.0%	0	0.0%		
	Bsc	21	7.0%	150	50.0%	77	25.7%	19	6.3%		
6	Msc	0	0.0%	0	0.0%	0	0.0%	0	0.0%	211.09	.000a,b,*
	Designation										
	staff nurse	22	7.3%	160	53.3%	78	26.0%	16	5.3%		
7	Incharge nurse	2	.7%	10	3.3%	5	1.7%	2	.7%	6.686	.670a,b
	Nursing supervisors	0	0.0%	4	1.3%	0	0.0%	1	.3%		
	Area_of_Experience										
	ICU	1	.3%	0	0.0%	22	7.3%	6	2.0%		
	SICU	0	0.0%	0	0.0%	21	7.0%	6	2.0%		
	RICU	0	0.0%	0	0.0%	10	3.3%	0	0.0%		
	ICCU	0	0.0%	0	0.0%	6	2.0%	4	1.3%		
CASUALTY	0	0.0%	0	0.0%	0	0.0%	0	0.0%			
8	OT	0	0.0%	16	5.3%	1	.3%	1	.3%	3.878	.275a,b
	GENERAL WARD	23	7.7%	158	52.7%	23	7.7%	2	.7%		
	Years_of_Experience_										
	<1 YEAR	1	.3%	1	.3%	3	1.0%	0	0.0%		
9	1-5 yEARS	23	7.7%	166	55.3%	76	25.3%	19	6.3%	3.878	.275a,b
	5-10 YEARS	0	0.0%	6	2.0%	3	1.0%	0	0.0%		
	ABOVE 10 YEARS	0	0.0%	1	.3%	1	.3%	0	0.0%		
10	Any Special training undergone for ventilator Bundle Care									3.878	.275a,b
	YES	0	0.0%	3	1.0%	0	0.0%	1	.3%		
	NO	24	8.0%	171	57.0%	83	27.7%	18	6.0%		

Pre-test



There was a significant association found between the level of knowledge and the selected demographic variable such as “monthly income” and “area of experience”.

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