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RESEARCH ARTICLE

ASSESS THE EFFECT OF PLANNED TEACHING PROGRAMME ON KNOWLEDGE REGARDING VENTILATOR BUNDLE CARE TO PREVENT OCCURRENCE OF VENTILATOR ASSOCIATED PNEUMONIA AMONG NURSING OFFICERS WORKING IN SELECTED HOSPITAL, LUCKNOW

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Abstract

Astudy to assess the effect of Planned Teaching Programme on knowledge regarding ventilator bundle care to prevent occurrence of ventilator associated pneumonia among nursing officers working in selected hospital, Lucknow.The pre-experimental with one group pre test post test design was used. 50 nursing officers were included in the study. Thesocio demographic and knowledge questionnaire was collected. The knowledge level of nursing officers was assessed by self structured questionnaire.Ethical clearance was obtained from the Institutional Ethics Committee Board of Era's Lucknow Medical College & Hospital and formal permission obtained from Hospital prior to conducting the study. The data was analyzed using descriptive and inferential statistics.Finding related to planned teaching programme by comparing pre test and post test knowledge level in among nursing officers. A significant association existed among nursing officers at p value <0.05. The mean difference was 8.860 between the pre-test and the post-test level of knowledge among nursing officers. The paired t value (19.013) was found to be significant (p=<0.001). Thus indicating that planned teaching programme was effective regarding ventilator bundle care to prevent occurrence of ventilator associated pneumonia among nursing officers.

Introduction:-

Our body needs a continuous supply of oxygen to support the body's metabolism. Respiration is one of the processes needed for survival and also provides the necessary energy for carrying on all essential life processes. It is the process by which an organism exchanges gases with its environment. The respiratory tract is the pathway of air started from the nose to the lungs. It is divided into two sections: Upper Respiratory Tract and the Lower Respiratory Tract. Upper respiratory tract Includes Nostrils, Nasal Cavities, Pharynx, Epiglottis, and the Larynx. The lower respiratory tract consists of the Trachea, Bronchi, Bronchioles, and the Lungs.

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Background
In the medical field there are different types ventilators available. Mechanical ventilator is a common lifesaving intervention in the emergency department (ED) Mechanical ventilation is used to assist or replace spontaneous breathing.

A ventilator as designed to move breathable air in and out of the lungs which helps in breathing for a patient who is physically unable to breath or breathing insufficiently. The drinker and show tank type ventilator of 1929 was one of the first negative-pressure machines widely used for mechanical ventilation. It is known as the iron lung. A vacuum pump fabricated a negative pressure up to the chamber which result in expansion of the patient chest. This change in geometry reduces the intra pulmonary pressure and allows the air into the patient's lung. When the vacuum is released, the negative pressure applied to the chest drops to zero and the elastic recoil of the chest and lungs are permitted for passive ventilation. Nowadays most of the patients are provided with positive pressure ventilator.

Jyothikapoor (2017) stated a descriptive study to assess the knowledge and practice of ICU nurses on prevalence of VAP among patients admitted in critical care units of government medical college & hospitals, Jammu. The sample consists of 50 ICU nurses. Purposive sampling technique was used to select the sample data were collected with the help of demographic protocol structured questionnaire and checklist. The result revealed that subjects 22 (44%) having average knowledge respectively. 16(32%) were having good knowledge, 8 (16%) & 4 (8%) were having below average and excellent knowledge respectively. That the result showed need inservice training programmes conduct to staff nurses their knowledge& practice and decreases Ventilator Associated Pneumonia rates.

Materials and Methods:-

Research Approach-
Quantitative research approach

Research Design-
Pre-experimental research design one group pre-test post-test design.

Variables under the study:
Independent Variable-
Planned teaching programme.

Dependent Variable-
Knowledge level of nursing officers.

Setting of the Study-
Era's Lucknow Medical College & Hospital

Sample Size-
50

Sampling Technique-
Convenient sampling technique

Procedure:-

1. Ethical clearance was obtained from Ethical Committee of Institutional Review Board, Era's Lucknow Medical College & Hospital, and the ethical clearance certificate was issued to conduct the final study.
2. The subjects were selected according to the inclusion criteria and exclusion criteria.
3. Nursing officers were selected conveniently from Era's Lucknow Medical College & Hospital.
4. Informed consent was obtained from each participant.
5. The demographic data were collected using structured questionnaire.
6. The knowledge level were assessed usingusing frequency distribution and percentage. Comparison of pretest and post test scores were computed on the basis of paired "t" test. Association of knowledge with selected demographic variables and knowledge questionnaire were computed based on chi-square test.

7. The planned teaching programmewas administered to the experimental group for a duration of 60 minutes by the researcher.
8. The knowledge level was assessed after completion of 7 days.

Results:-

The data was coded and entered in Microsoft Excel Sheet and were analysed using descriptive and inferential statistical methods with the help of SPSS version 20.

Table 1

Table No. 1:- Frequency and Percentage distribution of demographic variables in nursingofficers (N=50).

Demographic Variables	Options	Percentage (n %)	Frequency
Age	21-25 Year	50.0%	25
	26-30 Year	44.0%	22
	31-35 Year& 36 year or above	6.0%	3
Professional Qualification	Diploma in Nursing & Midwifery	50.0%	25
	B.Sc. Nursing	34.0%	17
	Post Basic B.Sc. Nursing and M.Sc. Nursing	16.0%	8
Years of experience in intensive care unit	6 months to less than 1 year	54.0%	27
	1 year to less than 3 year	26.0%	13
	3 year to less than 5 year and >5 year	20.0%	10
Overall experience in clinical area	0 to less than 2 year	58.0%	29
	2 year to less than 5 year	28.0%	14
	5 year to less than 8 year and 8 year and above	14.0%	7
Any special training undergone before for ventilator bundle care	Yes	14.0%	7
	No	86.0%	43

Table 2:- Comparison of descriptive statistics of pre-test and post-test Scores of knowledge N= 50.

	Mean	S.D	Mean%	Paired T test	P value	Table value
Pre test	16.7	3.76	55.7	19.013	<0.001	2.01
Post test	25.56	2.44	85.2			

*** Significance at p value <0.05 Maximum=30 Minimum=0**

Table 3:- Association of post test level of knowledge regarding ventilator bundle care to prevent ventilator associated pneumonia with the demographic variable among nursing officers.N=50

ASSOCIATION OF POSTTEST KNOWLEDGE SCORES OF SELECTED DEMOGRAPHIC VARIABLES.											
Demographic Variables	**Category**	**ADEQUATE KNOWLEDGE**			**INADEQUATE KNOWLEDGE**		**Chi Test**	**P Value**	**df**	**Table Value**	**Result**
Age	21-25 Year	8	17	0	0	0	16.538	0.000	2	5.991	Significant

	26-30 Year	19	3	0	0	0					
	31-35 Year and 36 year or above	3	0	0	0	0					
Professional Qualification	Diploma in Nursing & Midwifery	11	14	0	0	0	5.982	0.050	2	5.991	Not Significant
	B.Sc. Nursing	12	5	0	0	0					
	Post Basic B.Sc. Nursing and M.Sc. Nursing	7	1	0	0	0					
Years of experience in intensive care unit	6 months to less than 1 year	10	17	0	0	0	14.150	0.001	2	5.991	Significant
	1 year to less than 3 year	10	3	0	0	0					
	3 year to less than 5 year and >5 year	10	0	0	0	0					
Overall experience in clinical area	0 to less than 2 year	11	18	0	0	0	14.409	0.001	2	5.991	Significant
	2 year to less than 5 year	12	2	0	0	0					
	5 year to less than 8 year and 8 year and above	7	0	0	0	0					
Any special training undergone before for ventilator bundle care	Yes	7	0	0	0	0	5.426	0.020	1	3.841	Significant
	No	23	20	0	0	0					

Table 4:- Comparison of descriptive statistics of pre-test and post-test Scores of knowledge N= 50.

	Mean	**S.D**	**Mean%**	**Paired T test**	**P value**	**Table value**
Pre test	16.7	3.76	55.7	19.013	<0.001	2.01
Post test	25.56	2.44	85.2			

*** Significance at p value <0.05 Maximum=30 Minimum=0**

Discussion:-

The study reveals that there was a significant difference between mean pre-test and post-test knowledge among nursing officers.

The present study findings were also supported by Sharma bhartiwho conducted a study to evaluate the effectiveness of planned teaching programme on level of knowledge regarding ventilator bundle care in B.Sc Nursing students. Data was collected for the period of 7 days using structured questionnaire. Result showed that post test mean knowledge score percentage was 71.5% was significantly higher than the mean of pre test score 48.06%.

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