Original Article

EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAMME ON KNOWLEDGE REGARDING CARE OF CHILDREN ON MECHANICAL VENTILATOR AMONG STAFF NURSES WORKING IN PEDIATRIC INTENSIVE CARE UNITS OF SELECTED HOSPITALS AT BELGAUM

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ABSTRACT

Background: Mechanical ventilation is a method to mechanically assist or replace spontaneous breathing. This may involve a machine called a ventilator or the breathing may be assisted by a physician or other suitable person compressing a bag or a set of bellows. Traditionally divided into negative-pressure ventilation, where air is essentially sucked into the lungs, or positive pressure ventilation, where air (or another gas mix) is pushed into the trachea. Owing to the anatomy of the human pharynx, larynx, and esophagus and the circumstances in which ventilation is required then additional measures are often required to "secure" the airway during positive pressure ventilation to allow proper passage of air into the trachea and avoid air enters into the esophagus and stomach. **Method**: This was pre-experimental study a total of 500 subjects was selected through non-probability convenient sampling technique. Pre-experimental one group pre-test, post-test design was used. Data was collected by structured knowledge questionnaire. Data collected under the 2 sections (socio-demographic data, knowledge questionnaires). The reliability of the tool was established by spilt half method formula. The reliability result of knowledge was r = 0.902829. Video assisted teaching programme was developed effective for staff nurses regarding the care of children on ventilators, Content validity of the tool was established by six experts. Data was analyzed by using descriptive statistics and inferential statistically in terms of frequency, percentage, mean, standard deviation, Chi-square values. **Results:** With regard to the pre-test knowledge assessment, the mean percentage of response was 66.97 %, with mean and SD of 17.62 ± 2.43, which increased to 91.67% with mean and SD of 29.43 ± 1.82 in the post-test. Further effectiveness of planned video assisted teaching programe was tested by inferential statistics using paired 't' test [('t'= 90.4970, P< 0.05)]. On the whole, the analysis revealed that the video assisted teaching programme was very effective in increasing the knowledge of staff nurses on care of children on ventilator. **Conclusion:** Video assisted teaching programme was effective in increasing the knowledge of staff nurses regarding care of children on ventilator

KEYWORDS: Effectiveness; video assisted teaching; ventilator; pediatric intensive care unit.

1. BACKGROUND

Mechanical ventilation is often a life-saving intervention, but carries many potential complications, including pneumothorax, airway injury, alveolar damage, and ventilator-associated pneumonia. Healthy and active children are beautiful gift to the world. Unfortunately, children get disease, some from the environment and some from heredity. Nurses should be very skillful in care of children, especially in Pediatric Intensive Care Units (PICU).[1] Increasing complexity of pediatric critical care has required corresponding evolution in the sophistication of Pediatric Critical Care Nursing. The role of nursing in this setting is multifaceted. The nurse serves as a form of local system monitor, continually monitoring all physiological parameters and treatment devices as well as the child's body. The nurse should be very skillful in handling devices like mechanical ventilators, infusion pumps, bedside multi parameter

monitors and other ancillary equipment in Pediatric ICU.[2]

The incidence of ventilator associated pneumothorax in pediatric ICUs has been reported to be between 4.5%-8%, ventilator associated pneumonia 20-25 % and accidental extubation around 4.1 %, according to the research studies from different parts of the world.[3] In United States 12.8%/ 100000 population suffer ventilator associated lung injury..and.among. These Patients, 9% Died.due.to.this.lung.injury.every.year.[4]

Many deaths occur in Pediatric ICU's due to ventilator associated complications. The common complications are ventilator associated pneumonia, accidental extubation, septicemia etc. The incidence of mortality rate in pediatric ICU's is around 14%. The Pediatric ICU Nurse should have adequate knowledge and aptitude in ventilator care.[5] The mortality in Pediatric ICU can be reduced by standardizing the protocols of care of children on ventilators. Assessing the knowledge level of the individual staff in the PICU will help in identifying the lacunae in their skill, knowledge and evolve strategies to improve the training of critical care nurses.[6] 'Each child is a precious gift of lord', so no complication occurs in the PICU's due to lack of knowledge and skill in nurses.[7]

2. Methods
2.1 Study Area: The study was conducted from July 1 2019 to August 1 2019 in the selected Pediatric intensive care unit hospitals at Belagavi.

2.2 Study design
One-group pre-test post-test design judges the effect of the treatment by the difference between the pre-test and post-test scores without comparing the control group.

2.3 Sample size determination
Convenient sampling techniques were used to select staff nurses.

2.4 Data collection procedures
Data was collected in selected pediatric intensive care unit hospitals from 1-10-2019 to 1-11-2019 after obtaining the permission from concerned authorities. The pre test was conducted using structured knowledge questionnaire and video assisted teaching program was administered. A post test was conducted on same subjects seven days after the administration of video assisted teaching programe using the same structured questionnaire as used for the pre-test.

2.5 Data processing and analysis
Data was analyzed using both descriptive and inferential statistics. Distribution of subjects with respect to demographic variables was represented using frequency and percentage. Mean, standard deviation, and mean percentage were used to describe the knowledge of Staff nurses regarding the care of children on mechanical

ventilation. The Statistical significance of the effectiveness of the video assisted teaching programme will be analyzed by paired 't' test. Data will be presented in tables, graphs and diagrams. Chi-square test will be used to find out the association between knowledge of staff nurses and selected socio-demographic variables.

2.6 Ethical Consideration
An Ethical clearance was obtained before conducting this research from the Himalayan University College of health and medical sciences. All study participants were informed about the purpose of the study, their right to deny participation, anonymity and confidentiality of the information.

3. RESULT

3.1. Description of socio-demographic characteristics of sample.
Table 1: 341 respondents age group between 31 to 40 years are 68.20 percent 110 respondents age group between 41 years are 22.0 percent and 49 respondents are age group between 21-30 years are 9.80 percent**.**339 respondents are male staffs 67.80 percent and 161 respondents are female staffs 32.20 percent.223 respondents are Muslim religion, 44.60 percent, 188 respondents are Christian religion 37.60 and 89 respondents are Hindu religion 17.80percent. Most (66.20%) of staff nurses had General Nursing Midwifery education. 17.80 percent of them completed Basic B.Sc Nursing education and16.00 Percentage PB B.Sc. Nursing education. 49.80 percent of staff nurses were married and 30.40 percent of unmarried remaining 19.80 were widowed. 41.20 percent of staff nurses attended the training program on care of children on ventilator and 58.80 percent of them did not attend the training program. Most 39.80 percent of staff nurses had 7 years of experience, 35.80 percent of them had 1-3 years and 24.40 percent of them had an experience of 4 to 6 years.

3.2: Comparison of pretest and posttest levels of knowledge of respondents
Table; 2: Categorization of the staff nurses on the basis of their level of knowledge was done as follows: pretest 18.60 percent low knowledge scores 65.80 percentage average knowledge levels and 15.60 percentage high level knowledge. Posttest knowledge score of staff nurses having high score.

3.3: Association between pretest knowledge levels with demographic characteristics
Table;3: Assessment of the level of pretest knowledge of staff nurses with demographic characteristics. Age group between 21-30 years of age group had low knowledge 4.8 percent knowledge and 31-40 age group staff nurses had high knowledge 68.2 percent knowledge regarding care of children on ventilator. Gender pretest knowledge of staff nurses male had high knowledge 67.8 percent and female staff nurse had low knowledge 32.2 percent knowledge regarding care of children on ventilator. Religion pretest knowledge of staff nurse's Muslim

religion had high knowledge 44.6 percent. Hindu religion had low knowledge 17.8 percent regarding care of children on ventilator educational status. Diploma nursing had high knowledge 66.2 percentage Bsc nursing17.8 percentages and 16.00 percentage PB Bsc nursing had low knowledge regarding care of children on ventilator. Marital status married had high knowledge 49.8 percentage single had knowledge 30.4 percentage and widow had 19.8 percentage low knowledge regarding care of children on ventilator.58.8 percent of staff nurses not attended any educational programme and 41.2 percent of staff nurses attended educational programme on care of children on ventilator.39.8 percent of staff nurses had 7 years of experiences 35.8 percent of 1-3 year of experiences and 24.4 percent of 4-6 years of work experiences.

3.4 Association between posttest knowledge levels with demographic characteristics

Table; 4: Assessment of the level of posttest knowledge of staff nurses with demographic characteristics. Age group between 21-30 years of age group had low knowledge 4.8 percent knowledge and 31-40 age group staff nurses had high knowledge 68.2 percent knowledge regarding care of children on ventilator. Gender pretest knowledge of staff nurses male had high knowledge 67.8 percent and female staff nurse had low knowledge 32.2 percent knowledge regarding care of children on ventilator. Religion pretest knowledge of staff nurse's Muslim religion had high knowledge 44.6 percent. Hindu religion had low knowledge 17.8 percent regarding care of children on ventilator educational status. Diploma nursing had high knowledge 66.2 percentage Bsc nursing17.8 percentages and 16.00 percentage PB Bsc nursing had low knowledge regarding care of children on ventilator. Marital status married had high knowledge 49.8 percentage single had knowledge 30.4 percentage and widow had 19.8 percentage low knowledge regarding care of children on ventilator.58.8 percent of staff nurses not attended any educational programme and 41.2 percent of staff nurses attended educational programme on care of children on ventilator.39.8 percent of staff nurses had 7 years of experiences 35.8 percent of 1-3 year of experiences and 24.4 percent of 4-6 years of work experiences.

3.5 Comparison of pretest and posttest total knowledge and its component scores by dependent t test

Table;5:Comparison of mean percentage of the knowledge scores of the pretest and posttest and its component scores by dependent t test, total knowledge pretest mean17.62 and SD 2.43 and post test reveals an increase of mean 29.43 SD 1.82and mean percentage effect of 66.97. Comparison of area wise mean and SD of the knowledge score in the area of general information on "care of children on ventilator" shows that the pre-test mean percentage of knowledge score was 7.0 and 1.73. whereas post test mean percentage of knowledge score was 80.33 percent with mean and SD 12.63 ± 0.96.mechanical ventilator shows that pre-test mean percentage of knowledge score was 53.73 percent with mean and SD 3.56 ± 0.90. Whereas post test mean percentage of knowledge score was shows mean and SD 5.48 ± 0.64.Prevention of ventilator associated complications shows that percentage score was 36.66 percent with pretest mean and SD 2.55 ± 0.79. Whereas post test mean percentage of knowledge score was shows mean and SD 3.48 ± 0.54.Care of child shows that mean percentage score was 111.63 percent with pretest mean and SD 1.11 ± 0.62. Whereas post test mean percentage of knowledge score was shows mean and SD 2.33 ± 0.59. Care of ventilator mean percentage score was 61.67 percent with pretest mean and SD 3.40 ± 0.80. Whereas post test mean percentage of knowledge score was shows mean and SD 5.50 ± 0.83.

Section D: Testing of Hypothesis: To evaluate the effectiveness of video assisted teaching a research hypothesis was formulated.

H_1 - A Significant Difference will be found between post-test and pre-test knowledge scores with 0.05 level of significance

Paired 't' test was used to find out the significant difference between the pre-test and post-test knowledge scores of staff nurses regarding care of children on ventilator.

Table 1: Association between pre-test knowledge scores of staff nurses regarding care of children on ventilator and selected socio-demographic variables.

Demographic Profile	No of Respondents	% of Respondents
Age groups- 21-30 years	49	9.80
31-40 yrs	341	68.20
41+ yrs	110	22.00
Gender- Male	339	67.80
Female	161	32.20
Religion -Hindu	89	17.80
Christian	188	37.60
Muslim	223	44.60
Educational status-GNM	331	66.20
Basic Bsc/P.B. BSc Nursing	89	17.80

Post graduate nursing	80	16.00
Marital status -Single	152	30.40
Married	249	49.80
Widowed/Divorced	99	19.80
Educational programme-　Yes	206	41.20
No	294	58.80
Work experience as staff nurse -1-3 years	179	35.80
4-6 years	122	24.40
7+ years	199	39.80
Total	**500**	**100.0**

Table II: Comparison of pretest and posttest levels of knowledge of respondents.

Levels of knowledge	Pretest	%	Posttest	%
Low level	93	18.60	0	0.00
Average	329	65.80	0	0.00
High level	78	15.60	100	100.00
Total	500	100.00	100	100.00

Table III: Association between pretest knowledge levels with demographic characteristics.

Characteristics	Pretest levels of knowledge								Chi-square	df	p-value
	Low level	%	Average	%	High level	%	Total	%			
Age groups -21-30yrs	14	28.57	33	67.35	2	4.08	49	9.80	11.2066	4	0.0244*
31-40 yrs	56	16.42	232	68.04	53	15.54	341	68.20			
41+ yrs	23	20.91	64	58.18	23	20.91	110	22.00			
Gender -Male	61	17.99	224	66.08	54	15.93	339	67.80	0.2932	2	0.8637
Female	32	19.88	105	65.22	24	14.91	161	32.20			
Religion -Hindu	15	16.85	58	65.17	16	17.98	89	17.80	7.1148	4	0.1300
Christian	45	23.94	113	60.11	30	15.96	188	37.60			
Muslim	33	14.80	158	70.85	32	14.35	223	44.60			
Education -G.N.M	79	23.87	220	66.47	32	9.67	331	66.20	37.4899	4	0.0001*
Basic Bsc/P.B. BSc Nursing	6	6.74	57	64.04	26	29.21	89	17.80			
Post graduate nursing	8	10.00	52	65.00	20	25.00	80	16.00			
Marital status -Single	26	17.11	101	66.45	25	16.45	152	30.40	3.3379	4	0.5030
Married	44	17.67	170	68.27	35	14.06	249	49.80			
Widowed/Divorced	23	23.23	58	58.59	18	18.18	99	19.80			
educational programme -Yes	21	10.19	143	69.42	42	20.39	206	41.20	19.1547	2	0.0001*
No	72	24.49	186	63.27	36	12.24	294	58.80			
Work experience 1-3 years	41	22.91	114	63.69	24	13.41	179	35.80	7.8377	4	0.0977
4-6 years	14	11.48	89	72.95	19	15.57	122	24.40			
7+ years	38	19.10	126	63.32	35	17.59	199	39.80			
Total	93	18.60	329	65.80	78	15.60	500	100.0			

Table IV: Association between posttest knowledge levels with demographic characteristics.

Characteristics	Posttest levels of knowledge							
	Low level	%	Average	%	High level	%	Total	%
Age groups -21-30yrs	0	0.00	0	0.00	49	100.0	49	9.80
31-40 yrs	0	0.00	0	0.00	341	100.0	341	68.20
41+ yrs	0	0.00	0	0.00	110	100.0	110	22.00
Gender -Male	0	0.00	0	0.00	339	100.0	339	67.80
Female	0	0.00	0	0.00	161	100.0	161	32.20
Religion -Hindu	0	0.00	0	0.00	89	100.0	89	17.80
Christian	0	0.00	0	0.00	188	100.0	188	37.60
Muslim	0	0.00	0	0.00	223	100.0	223	44.60
Education -G.N.M	0	0.00	0	0.00	331	100.0	331	66.20
Basic Bsc/P.B. BSc Nursing	0	0.00	0	0.00	89	100.0	89	17.80
Post graduate nursing	0	0.00	0	0.00	80	100.0	80	16.00
Marital status -Single	0	0.00	0	0.00	152	100.0	152	30.40

Married	0	0.00	0	0.00	249	100.0	249	49.80
Widowed/Divorced	0	0.00	0	0.00	99	100.0	99	19.80
Educational programme -Yes	0	0.00	0	0.00	206	100.0	206	41.20
No	0	0.00	0	0.00	294	100.0	294	58.80
Work experience -1-3 years	0	0.00	0	0.00	179	100.0	179	35.80
4-6 years	0	0.00	0	0.00	122	100.0	122	24.40
7+ years	0	0.00	0	0.00	199	100.0	199	39.80
Total	**0**	**0.00**	**0**	**0.00**	**500**	**100.0**	**500**	**100.0**

Table V: Comparison of pretest and posttest total knowledge and its component scores by dependent t test.

Variables	Time	Mean	SD	Mean Diff.	SD Diff.	%of effect	Paired t	P-value
Total knowledge	Pretest	17.62	2.43					
	Posttest	29.43	1.82	-11.80	2.92	-66.97	-90.4970	0.0001*
General information on care of children	Pretest	7.01	1.73					
	Posttest	12.63	0.96	-5.63	1.89	-80.33	-66.7289	0.0001*
Mechanical ventilator	Pretest	3.56	0.90					
	Posttest	5.48	0.64	-1.91	1.04	-53.73	-41.0163	0.0001*
Prevention of ventilator associated complications	Pretest	2.55	0.79					
	Posttest	3.48	0.54	-0.93	0.90	-36.66	-23.1873	0.0001*
Care of children	Pretest	1.11	0.62					
	Posttest	2.33	0.59	-1.23	0.78	-111.03	-35.2959	0.0001*
Care of ventilator	Pretest	3.40	0.80					
	Posttest	5.50	0.83	-2.10	1.14	-61.67	-41.1611	0.0001*

4. DISCUSSION

The present study was conducted to evaluate the effectiveness of video assisted teaching programme on care of children on mechanical ventilator. In order to achieve the objectives of the study, pre-experimental one group pre-test post-test design with an evaluative approach was adopted. The sample was selected by convenient sampling technique. The sample comprised of 500 staff nurses and the data was collected using a structured questionnaire from them before and after the administration of video assisted teaching programme.

4.1 Description of the socio-demographic variables of the staff nurses: Findings revealed that the most (68.20%) of staff nurses were in the age of 31-40 years and 29.80% of staff nurses were in the age of 21-30 years and 22 % of staff nurses 41years and above each. 67.80 percent of them were males and 32.20 percent of them were females. Majority of staff nurses 44.60 percent were belonging to Muslim religion and 37.60 percent of them were Christian. And 17.80 percent of them were Hindu religion.

Distribution of staff nurses according to their educational status shows that 66.20 percent of staff nurses had general nursing midwifery, 17.80 percent of them completed Basic B.Sc and 16.00 percent PB BSc. Nursing and no staff nurses with post graduation in nursing. 49.80 percent of staff nurses were married, 30.40 percent of them were unmarried and 19.80 percent were widow.

41.20 percent of staff nurses attended the training program on care of children on mechanical ventilator. 58.80 Percent of staff nurses not attended any educational programme. Most 39.80 percent of staff nurses had 7 years of experience, 24.40 percent of them had 4-6 years, and 35.80 percent of them had an experience of 1-3 years.

4.2 Assessment of the pre-test knowledge of staff nurses on care of children on mechanical ventilator
Findings of the present study showed that majority (65.80%) of the staff nurses had only average knowledge and 18.60 percent of the sample had Low knowledge and there were only 15.60 percent of staff nurses had high knowledge.

A experimental study was designed to assess the knowledge of staff nurses regarding care of children on mechanical ventilator. Results showed that the majority of staff nurses had moderately adequate knowledge regarding care of children on mechanical ventilator. The staff nurses' level of education had a significant association with their practice.[8]

4.3: Area-wise assessment of knowledge scores of staff nurses on care of children on mechanical ventilator
Comparison of mean percentage of the knowledge scores of the pretest and posttest and its component scores by dependent t test, total knowledge pretest mean 17.62 and SD 2.43 and post test reveals an increase of mean 29.43 SD 1.82 and mean percentage effect of 66.97. Comparison of area wise mean and SD of the knowledge score in the area of general information on "care of children on ventilator" shows that the pre-test mean percentage of knowledge score was 7.0 and 1.73. whereas post test mean percentage of knowledge score was 80.33 percent with mean and SD 12.63±

0.96.mechanical ventilator shows that pre-test mean percentage of knowledge score was 53.73 percent with mean and SD 3.56±0.90. Whereas post test mean percentage of knowledge score was shows mean and SD 5.48±0.64.Prevention of ventilator associated complications shows that percentage score was 36.66 percent with pretest mean and SD 2.55±0.79. Whereas post test mean percentage of knowledge score was shows mean and SD 3.48±0.54.Care of child shows that mean percentage score was 111.63 percent with pretest mean and SD 1.11±0.62. Whereas post test mean percentage of knowledge score was shows mean and SD 2.33±0.59. Care of ventilator mean percentage score was 61.67 percent with pretest mean and SD 3.40±0.80. Whereas post test mean percentage of knowledge score was shows mean and SD 5.50±0.83.4.4 Shortage of Trained Health Workers

4.4: Evaluation of the effectiveness of video assisted teaching programme on care of children on mechanical ventilator
4.4.1: Comparison of level of knowledge of staff nurses in pre-test and post-test
In pretest knowledge score majority 65.80 percent of staff nurses had average knowledge, 18.60 percent of staff nurses had low knowledge and only 15.60 percent of the staff nurses had High knowledge regarding care of children on ventilator. Whereas in post test knowledge scores all the staff nurses had High knowledge.

4.4.2: Area-wise effectiveness of video assisted teaching programme on care of children on mechanical ventilator
Comparison of mean percentage of the knowledge scores of the pretest and posttest and its component scores by dependent t test, total knowledge pretest mean17.62 and SD 2.43 and post test reveals an increase of mean 29.43 SD 1.82and mean percentage effect of 66.97. Comparison of area wise mean and SD of the knowledge score in the area of general information on "care of children on ventilator" shows that the pre-test mean percentage of knowledge score was 7.0 and 1.73. whereas post test mean percentage of knowledge score was 80.33 percent with mean and SD 12.63± 0.96.mechanical ventilator shows that pre-test mean percentage of knowledge score was 53.73 percent with mean and SD 3.56±0.90. Whereas post test mean percentage of knowledge score was shows mean and SD 5.48±0.64.Prevention of ventilator associated complications shows that percentage score was 36.66 percent with pretest mean and SD 2.55±0.79. Whereas post test mean percentage of knowledge score was shows mean and SD 3.48±0.54.Care of child shows that mean percentage score was 111.63 percent with pretest mean and SD 1.11±0.62. Whereas post test mean percentage of knowledge score was shows mean and SD 2.33±0.59. Care of ventilator mean percentage score was 61.67 percent with pretest mean and SD 3.40±0.80. Whereas post test mean percentage of knowledge score was shows mean and SD 5.50±0.83.

4.5: Testing of Hypothesis
4.5.1: Significance of difference between pre-test and post-test knowledge scores of staff nurses
Paired 't' test was used to find out the significance of difference between pre-test and post-test knowledge scores of staff nurses on care of children on mechanical ventilator**.** Findings revealed that the difference between mean pre-test (17.62±2.43) and post-test (29.43±1.82) knowledge scores of staff nurses found to be statistically significant at 0.05 level of significance [t= 90.4970, p<0.05]. It indicated that video assisted teaching programme was very effective in improving the knowledge of staff nurses on care of children on mechanical ventilator.

A study was carried out aiming at assessing the effects of a training program on the knowledge, attitude and practices (KAP) of health care workers (HCWs) in pediatric intensive care unit regarding care of children on ventilator .Results showed significant improvements in the knowledge of the trained staff nurses after training, the 500 staff nurses obtained higher mean comprehension score (17.62 +/- 2.43), higher mean practice score (29.43 +/- 1.82), and higher mean general scores (32.3 +/- 4.6) compared to the mean scores they obtained in the pre-test (5.7 +/- 1.5; 7.4 +/- 2.2 and 25.7 +/- 4.4, respectively). These differences were statistically significant (P < 0.001).[45]

4.6: Association between Pre-test knowledge scores of staff nurses and selected socio-demographic variables
Findings revealed that no significant association was found between pre-test knowledge scores of the staff nurses and socio demographic variables such as Age, Gender, Religion, Educational status, Marital status, Training attended on care of children on mechanical ventilator, Work experience as staff nurse.

5. CONCLUSION
Most of the staff nurses (68.20%) were of 31-40 years of age. Majority (67.80%) of the staff nurse were Males. Most of the staff nurses (44.60%) were belonging to Muslim religion. Majority (66.20%) of staff nurse had General nursing midwifery training. Most of the staff nurses (49.80%) were married. Majority (58%) of the staff nurses were attended the training programme on care of children on mechanical ventilator. Most of the staff nurses (39%) had an experience of 7 years.

Majority (65.80%) of staff nurses had average level of knowledge regarding care of children on ventilator and 18.60 percent of them had Average level of knowledge and only 15.60 percent staff nurse had high level of knowledge.

A significant difference was found between the pre-test and post-test knowledge scores of staff nurse. The study showed that the video assisted teaching programme was highly effective in improving the knowledge of staff nurse on care of children on ventilator. There was no

significant association found between pre-test knowledge scores of the staff nurse and socio demographic variables such as Age , Gender, Religion, Educational status, Marital status, Training attended in care of children on ventilator, Work experience as staff nurse, Experience in pediatric intensive care unit, Present working area.

What is known about this topic
- Staff nurses having lack of knowledge regarding care of children on ventilator by this study.
- Why ventilator children's are suffering with ventilator associated complications.

What this study adds
- This study helps to identify staff nurses knowledge regarding care of children on ventilator
- After assessing knowledge about staff nurses regarding ventilator care, provided video assisted teaching programme
- Staff nurses gain knowledge regarding care of children on ventilator
- It helps to reduce mortality and morbidity rate of children

Competing interests
- The authors declare no competing interest.

Authors' contributions
Sanjay shinde wrote the proposal, involved in the data collection, analysis and interpretation. Nagarajappa. D was involved in data collection, analysis and interpretation of statistical outputs and drafted the manuscript. Pritam kabade was involved in data collection, analysis and interpretation of statistical outputs. All authors read and approved the final manuscript.

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