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Effectiveness of conventional Teaching(CT) vs Video assisted teaching(VAT): Knowledge and Practices of Nursing Students on Neonatal Endotracheal Intubation

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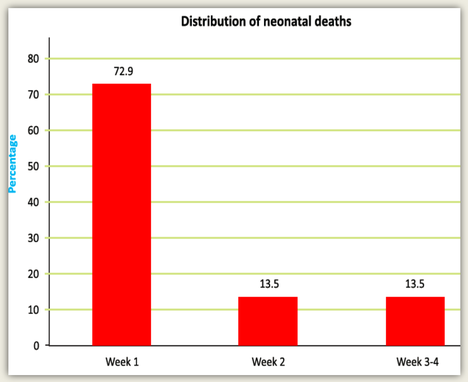
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BACKGROUND

Birth of a child is a special moment of joy for the parents but first few minutes after birth are full of concern and rapid physiological adaptation. Most babies go through the transition successfully; however 10 per cent of babies who do not start breathing immediately, need special care to initiate breathing[1]

The worldwide neonatal mortality rate fall by 47% between 1990 and 2015. However, the decline in neonatal mortality in 1990–2015 has been slower than that of post-neonatal under-five mortality[2] .

Figure 1: Bar graph showing Distribution of neonatal death per week by time since birth 2014



OBJECTIVES

1. To assess and compare the knowledge regarding neonatal ET intubation among nursing students before and after administration of CT and VAT
2. To assess and compare the practices regarding neonatal ET intubation among nursing students before and after administration of CT and VAT
3. To determine the relationship between the knowledge and practices scores regarding neonatal ET intubation among nursing students in CT and VAT group
4. To determine the association of knowledge and practices regarding neonatal ET intubation among nursing students with their selected sample characteristics in CT and VAT group

MATERIALS AND METHODS

A quantitative research approach using quasi experimental design (non equivalent control group pre test post test) was undertaken for the study. Sixty four (64) B.Sc. 3rd year nursing students in the age group of 19-24 years were selected using simple random sampling technique. The study was conducted at Maharishi Markandeshwar Institute of Nursing (CT group) and Maharishi Markandeshwar College of Nursing ,Mullana, Ambala (VAT group). Structured knowledge questionnaires was used to assess knowledge and structured observational checklist was used to assess practices among nursing students using paper pencil (self report) and observation technique. Reliability of the tool was established by KR-20 and was found to be 0.78 for structured knowledge questionnaires and inter rater reliability for structured observational checklist and was found to be 0.88. Tool was validated by 7 experts from different specialties. Time period of the study was from December, 2015 to June, 2017. The Ethical clearance was obtained from Maharishi Markandeshwar University's ethical committee (MMU/IEC/776). Further guidelines were followed by according to ICMR (India). This was followed by obtaining permission from the concerned authorities from the colleges. Before data collection the subjects were informed regarding the objectives of the study. Written consent was taken from the subjects. On the 1st day, pretest was taken in both the groups (CT and VAT) to assess knowledge and practices of nursing students regarding neonatal ET intubation and intervention was administered in means of conventional teaching to CT group and video assisting teaching to VAT group on the 2nd day. After 15th day of intervention post test was taken in both the groups and further data was analyzed.

SUMMARY

In the present study, there was no significant difference between CT and VAT in terms of knowledge and practices score of nursing students but there was significant difference at 0.05 level of significance between pretest and posttest knowledge and practice scores of nursing students within the groups. These findings were consistent with the other study where they found that the difference between the groups was not statistically significant (p=0.06)[3]

RESULTS

The computed chi square value for the selected variables in CT and VAT group showed that both the groups were homogenous and comparable.

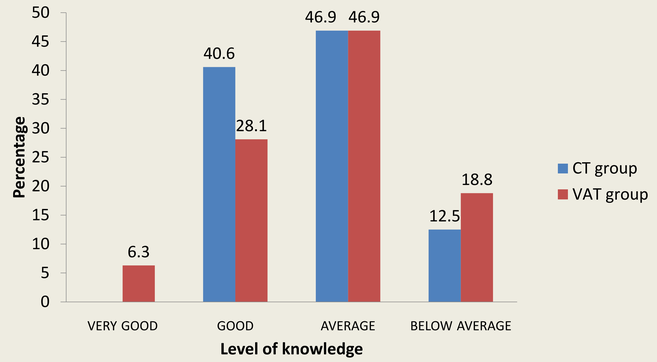


Figure 1: Bar Diagram Showing Post test score of level of knowledge after administration of CT and VAT in CT and VAT groups

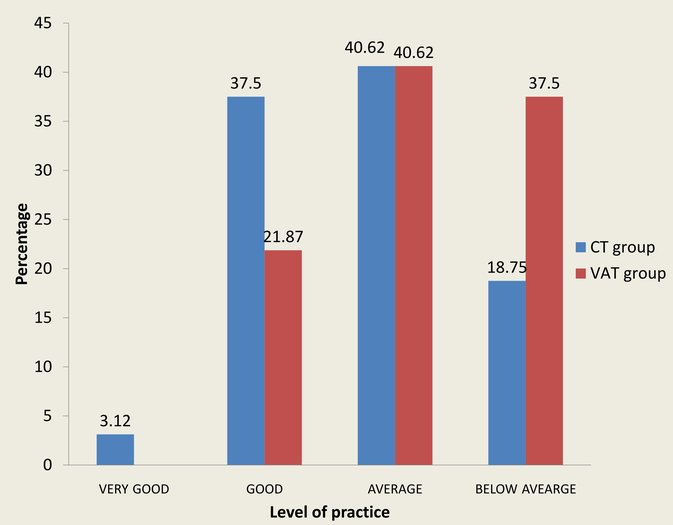


Figure 2: Bar Diagram Showing Post test score of level of practices after administration of CT and VAT in CT and VAT group.

Table -1

Variable	Group	Mean	M_D	SE_{MD}	't'value	P value
Knowledge	CT group	21.50	0.35	0.89	0.38	0.70^{NS}
	VAT group	21.16				
Practice	CT group	32.47	2.78	1.46	1.90	$.061^{NS}$
	VAT group	29.69				

The table 1 shows that there was no significant difference between CT and VAT group in terms of knowledge and practices after administration of intervention as calculated t value were **0.38** and **1.90** which were found to be non significant at **0.05** level significance.

Table -2

Group	Assessment	Mean	M_D	SDD	SE_{MD}	't'value	P value
CT group (n=32)	**Pre test**	14.34	7.16	4.22	0.75	9.59	0.00^{*}
	Post test	21.50					
VAT group (n=32)	**Pre test**	12.97	8.19	3.18	0.56	14.53	0.00^{*}
	Post test	21.16					

The table 2 shows that there was a significant difference between pre test and post test knowledge score in CT and VAT group as calculated 't' values were **9.59** and **14.53** was found to be statistically significant at **0.05** level of significance.

The findings also revealed that there was a significant difference between pretest and post test practices score in both groups at 0.05 level of significance. There was a **moderate positive correlation (r=0.59)** between post test of knowledge and practices score. There was no significant association found in both the groups with their selected variables respectively.

CONCLUSION

Both CT and VAT were found to be equally effective in enhancing the knowledge and practices of nursing students regarding neonatal ET intubation. Hence, CT can be combined with VAT to enhance better learning and skill development among nursing.

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