**Original Article** 

# A STUDY TO ASSESS THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING (VAT) ON KNOWLEDGE REGARDING NEONATAL RESUSCITATION AMONG B.SC NURSING STUDENTS IN SELECTED NURSING COLLEGE AT JAIPUR.

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## **ABSTRACT:**

**Introduction:** Approximately 5 million neonatal deaths occurs each year worldwide, of 26 million infants born in India, 3.5% experience asphyxia at birth. This suggest the health care provider skill should be improved by using the correct resuscitation techniques

**Method & Material:-** Pre-experimental one group pre-test post-test research design was used as it lays the base for future rigorous research. Purposive sampling technique was used to select 60 B.Sc. students in selected nursing at Jaipur. A pretest was conducted and implemented video assisted teaching programme after 7 days posttest was conducted

**Results:-** Out of 60 B.Sc. nursing students 45% of students had good and Very good knowledge and 8% had poor knowledge in pretest and 55 % and 47% of students had very good & good knowledge in post test regarding neonatal resuscitation. Over all pre test mean score was 53.79% whereas in post test the mean score was 78.18% revealing the difference of 24.39% shows the effectiveness of VAT. Paired t-test was calculated (7.61, 3.94, and 10.08) to assess the difference between pre and post-test knowledge regarding neonatal Resuscitation among B.sc nursing students. The finding shows highly significant difference for all the areas.

**Conclusion:-** From the findings of the data analysis it is clear that the video assisted teaching has an effect on enhancing the knowledge among bsc nursing students.

**Keywords:-** Video assisted teaching, knowledge, neonatal resuscitation, Nursing students, nursing college.

## INTRODUCTION:-

Neonatal resuscitation is the basic emergency procedure for life support in neonates. Effective resuscitation of the newborn infant needs adequate training and preparation of nursing students and staff involved in the care of mother and child.

The majority of the neonatal deaths are focused in the first day and week, with about 1 million dying on the first day and close to 1 million dying among subsequent 6 days. On current trends, more than sixty countries will miss the (Sustainable Development Goals) SDG target of reducing neonatal mortality to a minimum of as low as 12 deaths per 1000 live births by 2030. Concerning ½ of them won't reach the target by 2050. About 80% of the burden of neonatal deaths in 2016 carries out by these countries.

World Health Organization calculable that birth asphyxia accounts for an estimated 9 Lakh deaths annually in India and is one of the most primary causes of early neonatal death accounting for about 20% of all newborn deaths. Effective resuscitation can save the majority of newborns life who have asphyxia. This suggests the nursing students and staff skill should be improved by using the correct resuscitation techniques and procedure.

## STATEMENT OF THE PROBLEM

"A Study to assess the effectiveness of video assisted teaching (VAT) On Knowledge regarding neonatal resuscitation among B.sc Nursing Students in Selected Nursing College at Jaipur".

#### **OBJECTIVES-**

- To assess the level of knowledge regarding neonatal resuscitation among B.Sc. Nursing Students by pretest score.
- 2. To assess the level of knowledge regarding neonatal resuscitation among B.Sc. Nursing Students by post-test score.
- 3. To determine the effectiveness of video assisted teaching regarding neonatal resuscitation among B.Sc. Nursing Students.
- 4. Find out the association between the post test knowledge score regarding neonatal resuscitation among B.Sc. Nursing Students and their selected socio-demographic variables.

## **Hypothesis**:

- **1. H**<sub>1</sub>: There will be significant difference between pre and post test knowledge scores regarding neonatal resuscitation among B.Sc. Nursing students.
- **2.** H<sub>2</sub>: There will be significant association between the post test knowledge score regarding neonatal resuscitation among B.Sc. Nursing students and their selected socio-demographic variables.

#### **METHODOLOGY**

Keeping in mind the objectives of the study the Preexperimental one group pre-test post-test research design was used as it lays the base for future rigorous research. Purposive sampling technique was used to select 60 B.sc. nursing final year students in selected nursing colleges, Jaipur. The pilot study was conducted on 10 B.sc. nursing students. The tool developed and used for data collection contained socio-demographic data (6 variables), and structured knowledge questionnaire (30 items) to assess the knowledge of B.Sc. nursing students regarding neonatal resuscitation. A formal permission was taken from concerned authorities before collecting the data. After collection of data, master data sheet was formed to take thing forward for result and analysis.

## **RESULTS**

Out of 60 B.Sc. nursing students 45% of students had good and Very good knowledge and 8% had poor knowledge in pretest and 55% and 47% of students had very good & good knowledge in post test regarding

neonatal resuscitation. Over all pre test mean score was 53.79% whereas in post test the mean score was 78.18% revealing the difference of 24.39% shows the effectiveness of VAT. Paired t-test was calculated (7.61, 3.94, and 10.08) to assess the difference between pre and post-test knowledge regarding neonatal Resuscitation among B.sc nursing students. The finding shows highly significant difference for all the areas.

Table-1: Description of socio demographic Variable of B.Sc. Nursing Students

S.No.	Variables	Characteristics	Frequency	Percentage	
			(F)	(%)	
		19-20	3	5	
1	A	21-22	23	38.33	
-	Age in years	23-24	32	53.33	
		25 & above	23 38.33 32 53.33 2 2 3.33 24 38.33 36 60 51 85 7 11.66 1 1.67 1 1.67 53 88.33	3.33	
2	Gender	Male	24	38.33	
_	Genuel	Female	36	60	
		1-2	51	85	
3	Number of neonates resuscitated	3-7	7	11.66	
	by you in the last year	8-16	1	1.67	
		> 20	1	1.67	
		< 10	53	88.33	
4	Number of deliveries (vaginal or	10-30	5	8.33	
•	attended in the last year	30-50	2	3.33	
		> 50	0	0	
5	Do you perform neonatal	Yes	27	45	
3	resuscitation procedure during for clinical posting?	No	33	55%	

Table 2: Frequency and percentage distribution of knowledge regarding Neonatal Resuscitation among B.Sc. Nursing students

LEVEL OF	MIN-MAX	FREQU	JENCY	PERCENTAGE %		
KNOWLEDGE	OBTAINABLES	PRE-	POST-	PRE-	POST - TEST	
	CORE	TEST	TEST	TEST		
Very good	18-30	27	33	45	55	
Good	14-17	27	28	45	47	
Poor	0-13	05	00	08	00	

Table 3: Area wise comparison of pre and post test knowledge regarding neonatal resuscitation among B.sc nursing

Area	Max. Scores	Pre	-test So	cores	Post-test Scores			Difference in Mean %	
		Mean	SD	Mean %	Mean	SD	Mean %		
Anatomy & Physiology of respiratory system, basic concept about birth asphyxia, Knowledge about resuscitation	13	9.63	1.54	74.07	12.25	1.76	89.45	15.38	
Initial steps of resuscitation, Bag/mask ventilation, chest compression	09	4.81	1.94	53.44	6.38	1.98	68.76	15.32	
Medication, complication, guidelines for withholding and discontinuing resuscitation	08	2.71	1.30	33.87	18.28	4.32	76.32	42.45	
Overall	30	17.15	4.78	53.79	36.91	8.06	78.18	24.39	

Table 4 - Difference of pre-test and post-test knowledge regarding neonatal resuscitation B.Sc. Nursing Students.

S. No.	Area	t value	Level of significance		
1	Anatomy & physiology of respiratory system, basic concept about birth asphyxia, Knowledge about resuscitation	7.61	Highly Significant		
2	Initial steps of resuscitation ,Bag/mask ventilation, chest compression	3.94	Highly Significant		
3	Medication, complication, guidelines for withholding and discontinuing resuscitation	10.08	Highly Significant		

Table 5: Association between Post test knowledge score regarding neonatal resuscitation among B.Sc. Nursing students and their selected socio demographic Variable.

		Knowledge Score				9	ш			
S N	Demographic Variables		Frequency	Very Good	Good	Poor	Calculated value	Degree of freedom	Tabulated value	L.O.S@0.05
1	Age in years	19-20	3	2	1	0				
		21-22	23	12	10	1	4.68	6	12.59	NS
		23-24	32	14	18	0	4.08	0	12.39	IND
		25 & Above	2	2	0	0				
2	Gender	Male	24	9	15	0	1.2	2	5.99	NS
		Female	36	10	25	1	1.2	2	3.99	IND
3	Number of neonates	1-2	51	26	24	1				
	resuscitated by you in the	3-7	7	2	5	0	31.94	6	12.59	s
	last year	8-16	1	0	1	0				
		> 20	1	0	0	1				
	Number of deliveries	< 10	53	24	29	0				2.70
	(vaginal or LSCS) attended in the last year	10-30	7	5	2	0	1.73	2	5.99	NS
	Do you perform neonatal	YES	27	0	27	0	52.47	2	5.99	s
	resuscitation procedure during for Clinical posting	NO	33	30	2	1	52.47	2	5.99	5

#### **DISCUSSION**

The mean knowledge score obtained by the B.Sc. Nursing final year students was 17.15, with SD of 4.78 and mean score percentage was 53.79 % in pre test score whereas the mean knowledge score obtained by the B.Sc. Nursing final year students in pre test score was 36.91, with SD of 8.06 and mean score percentage was 78.18%. Comparison between pre and post test mean percentage score revealing the difference of 24.39% shows the effectiveness of VAT.

The finding of the present study is supported by a quasi experimental design with pre and post test study conducted by Dr. K. Tamizharasi. The pre test mean knowledge was 43% whereas in post test it was 58%. Highly significant difference was founded between the total knowledge score of pre and post test. It reveals the effectiveness of VAT programme and it is similar with

the present study findings

## **CONCLUSION**

The present study aims to assess the effectiveness of video assisted teaching on knowledge regarding newborn resuscitation among bsc nursing students studying in selected nursing college. From the findings of the data analysis it is clear that the video assisted teaching has an effect on enhancing the knowledge among bsc nursing students. Hence, the video assisted teaching on newborn resuscitation and assessment can be utilized by nursing students to prevent early neonatal complications and mortality.

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#### REFERENCES

- 1. Smith Sandra, Dwell S. Donna etal., (2000). Clinical Nursing Skills Basic to Advanced Skills. America: Prentice Hall Health International Limited.
- 2. Terese M. Verklan. (2004). Core Curriculum for Neonatal Intensive Care Nursing. Missouri: Elsevier Saunders Company.
- 3. Alexandra Osafo & Carl Bose (2009) Evaluating the effectiveness of a strategy for teaching neonatal resuscitation in West Africa. Resuscitation. 80(11), 1308-1311.
- 4. Altimier, L. & Warner B., et al. (2000) Neonatal thermoregulation. Indian Pediatrics. 100(8), 1058-62.
- 5. Amal Mohammed El-Dakhakhny (2011) Impact of educational program on newborn assessment. Life Science Journal. 8(1), 134-144.
- 6. Anne. Cc.lee., et al., (2011) Neonatal resuscitation and immediate newborn assessment and stimulation for the prevention of neonatal deaths: a systematic review, meta-analysis and Delphi estimation of mortality effect., Journal of Public Health. 13:11 suppl 3:12.
- 7. Villani P., et al (2010). Introduction to the principles of neonatal resuscitation. article in Italian. Pediatrics. 62(3 suppl 1), 225-6.
- 8. Weng M.H. (2004). Resuscitation of newborn infants with oxygen. Journal of Pediatrics. 8(5), 300-4.
- 9. Weiner G.M., et al. (2011). Self directed versus traditional classroom training for neonatal resuscitation. Pediatrics. 127(4), 713-9.
- 10. Weinstock P, Halamek L.P.(2008). Teamwork during resuscitation. Pediatric Clinics North America. 55(4), 1011-24.