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## A pre-experimental study to assess the effectiveness of video-assisted teaching on knowledge regarding neonatal resuscitation among nursing students in a selected college of Jammu

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### Abstract

The child is the greatest treasure of mankind. From birth to death, the health of the child, the well-being of the child, his safety, and his future are in the hands of a parent. A newborn's birth is a unique, joyful occasion filled with many expectations. But the initial minute following delivery is filled with nervous moments and quick physiological adaptations. As is typical, the majority of babies make the transition well; nonetheless, 10% of newborns may require support to varied degrees. A missed chance to save these babies now would have been critical to their survival. The study aims to assess the effectiveness of video-assisted teaching on knowledge regarding neonatal resuscitation among nursing students in selected colleges of nursing, Jammu. A pre-experimental study was conducted. The sample consists of 100 B.Sc. Nursing 4<sup>th</sup> year students at selected college of nursing, Jammu. The sample was chosen by using non-probability convenient sampling technique. Video Assisted Teaching was administered and data was collected by using self-structured knowledge questionnaire. The result reveals that in pre-test, 66% of nursing students had inadequate knowledge, 34% of nursing students had moderate knowledge, and 0% of nursing students had adequate knowledge. While in the post-test, 98% of nursing students had adequate knowledge, 2% of nursing students had moderate knowledge, 0% of nursing students had inadequate knowledge. The mean pre-test knowledge score was 13.53 and the mean post-test knowledge score was 28.84 and t value obtained (44.21) was to be found statistically very highly significant at 0.05 level of significance. The study concluded that the majority of B.Sc Nursing 4th-year students had inadequate knowledge regarding neonatal resuscitation before intervention. Video-assisted teaching regarding neonatal resuscitation was highly effective in increasing the knowledge of students. Hence it can be concluded that Video Assisted Teaching will be helpful in ensuring quality nursing care and thus lead to a decrease in neonatal mortality.

**Keywords:** Level of knowledge, effectiveness, neonatal resuscitation, nursing students, video-assisted teaching

### Introduction

“A new baby is like the beginning of all things; wonder, hope and a dream of possibilities.”

-Edaj. Le. Shan

A child is a gift of God. Child is a greatest treasure of mankind. From birth to death, the health of the child, wellbeing of child, his safety and his future are in the hands of parent. Birth of a newborn is a special moment of joy with lot of expectations. However, the first minute after birth is full of anxious moments and rapid physiological adjustments. Most babies go through the transition successfully as a matter of routine however 10% newborn may need varying degrees of assistance. Opportunity lost to provide needed assistance at this time would be a crucial for saving these babies <sup>[1]</sup>.

Newborn period is from the time of birth to 28 days of life. Approximately 85% to 90% of infants make the transition from intrauterine to extra uterine life with no assistance necessary. However, for the remaining few newborns, some assistance may be required, ranging from simple stimulation to complete resuscitation. The most physiological change

that takes place in the neonate is transition from fetal circulation to independent survival. The newborn needs adequate support to initiate breathing and maintain thermoregulation. Newborn resuscitation is done in order to establish breathing and ensure survival of the newborn [2]. Neonatal death is a global problem. It is a leading factor contributing in Perinatal and neonatal mortality which reflects social, educational and economical standards of community. Its incidence is very high in developing countries like India where health facilities are restricted to urban area and only 21 percent is getting benefits [2]. The causes of neonatal deaths are preterm birth, diarrhea, sepsis, pneumonia, congenital abnormalities, tetanus and asphyxia [3]. Among all birth asphyxia is a major cause of neonatal deaths.

According to World Health Organization (WHO), "Birth Asphyxia as failure to initiate and sustain breathing immediately after birth". It is the third major cause of newborn death after infections. Preterm births in developing countries accounts for an estimated 23% of the annual 4 million newborn deaths. WHO estimates that 120 million infants born in every year develop birth asphyxia in developing countries and require resuscitation? Based on a literature it is estimated that 24% - 61% of prenatal mortality is attributed to asphyxia. The cause of specific prenatal mortality rate associated with asphyxia is generally between 10 and 20 per 1000 births. Birth asphyxia generally refers to lack of oxygen close to the time of labour and delivery.

### Statement of the problem

A pre-experimental study to assess the effectiveness of Video-assisted teaching on knowledge regarding Neonatal Resuscitation among nursing students in selected college of Jammu.

### Objectives

1. To determine the pre-test knowledge regarding Neonatal Resuscitation among nursing students in selected college of Jammu.
2. To find out the effectiveness of video- assisted teaching on knowledge regarding Neonatal Resuscitation among nursing students in selected college of Jammu.
3. To find out the association between pretest knowledge score of nursing students regarding Neonatal Resuscitation with their selected Socio-demographic variables.

### Hypothesis

- **H<sub>0</sub> 1:** There will be no significant difference between pre-test and posttest knowledge score regarding Neonatal Resuscitation.
- **H<sub>0</sub> 2:** There will be no significant difference between pretest knowledge score and demographic variables.
- **H<sub>1</sub>:** There will be significant difference between pretest and posttest knowledge score regarding Neonatal Resuscitation.
- **H<sub>2</sub>:** There will be significant difference between pre-test knowledge score and selected socio-demographic variables.

## Methodology

### Research Methodology

Research methodology is defined as the specific procedures or techniques used to identify, select, process and analyze information about a topic.

This chapter deals with the methodology to assess the effectiveness of video assisted teaching on knowledge regarding Neonatal Resuscitation among nursing students in Selected colleges of Jammu.

### Research Approach

Research approach is defined as the description of the plan to investigate the phenomenon under study in a structured (quantitative), unstructured (qualitative) or a combination of both the two methods (qualitative -quantitative integrated approach)

Research approach used in my study is Quantitative research approach.

### Research Design

Research design is the master plan specifying the methods and procedures for collecting and analyzing the needed information in a research study.

The research design used in this study is pre-experimental (one group pre-test post-test design) with manipulation and no randomization and no control group.

## E 0 1 X 0 2

### KEY

E – Pre-experimental group.
01 – Pre-assessment (pre-test)
X - Nursing intervention (Video assisted teaching)
02 – Post assessment (post-test)

**Setting:** Stephens College of Nursing and Rajiv Gandhi College of Nursing, Jammu.

### Study population

**Target population:** Nursing students studying in Stephens College of Nursing and Rajiv Gandhi college of Nursing, Jammu.

**Accessible population:** Nursing students of B.Sc nursing 4<sup>th</sup> year available at the time of study.

**Sample:** The sample comprises of nursing students.

**Sample size:** 100 nursing students who meet the inclusion criteria.

**Sampling technique:** Sampling technique is Non – probability convenient sampling technique

### Sample criteria

#### Inclusion Criteria

- Nursing students who are willing to participate.
- Nursing students present during the study period.
- Nursing students of B.Sc nursing 4<sup>th</sup> year.

#### Exclusion Criteria

- Nursing students studying in other classes apart from B.Sc nursing 4<sup>th</sup> year.

- Nursing students who are not willing to participate.
- Nursing students who are not present at the time of data collection.

**Research variable**

Independent variables: Video assisted teaching.  
 Dependent variable: Knowledge of nursing students regarding Neonatal Resuscitation.

**Ethical consideration**

- Permission will be taken from the principal of Stephens College of Nursing and Rajiv Gandhi College of Nursing, Jammu.
- Written informed consent from subjects.
- Ethical clearance obtained from the institution.

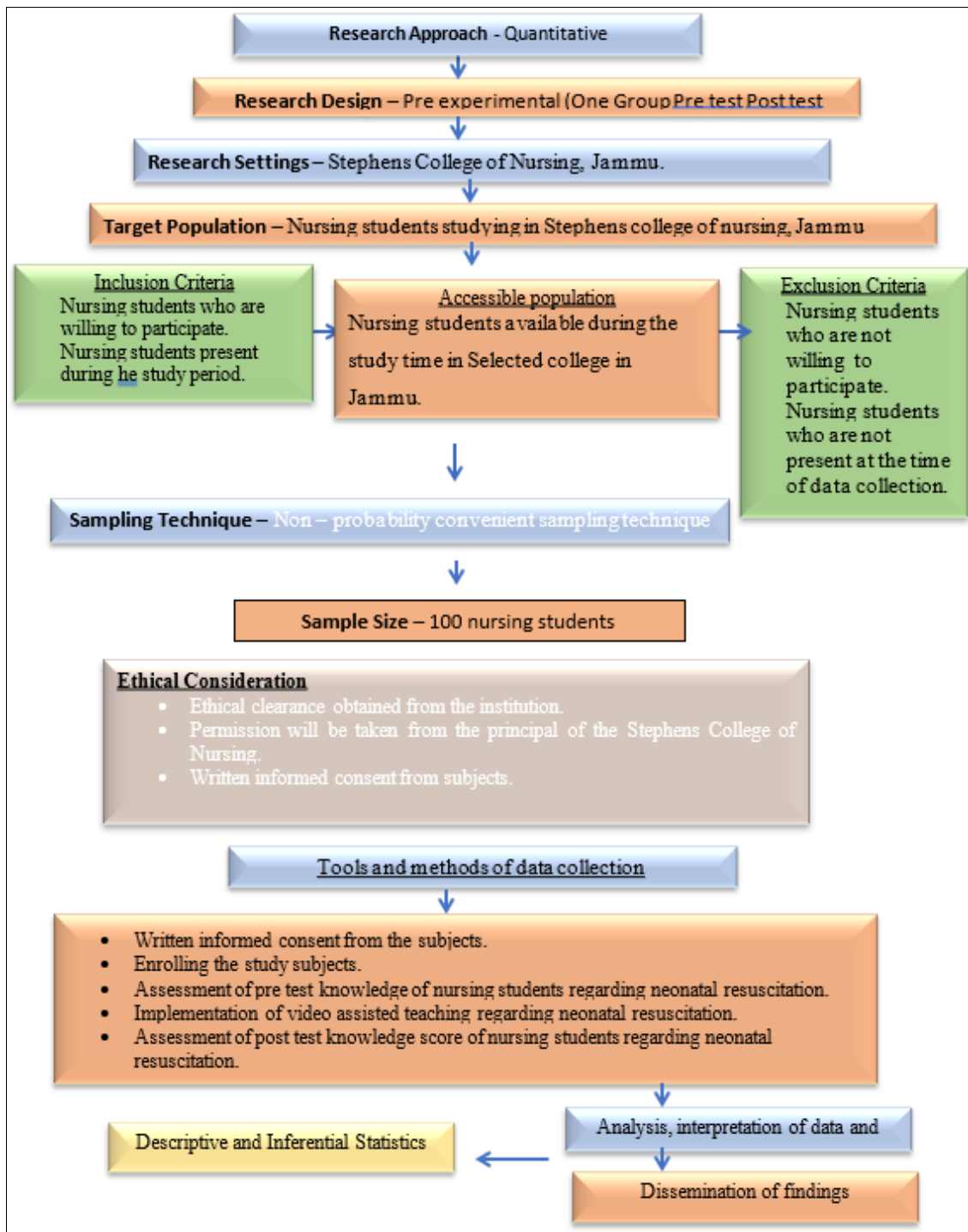
**Description of tool**

Tool used in the study will be divided into two parts:

**Section A:** It comprises of socio-demographic variables for obtaining personal information from the nursing students i.e. age, gender, type of family, area of residence, marital status, and source of information.

**Section B:** It consists of 30 multiple-choice questions to assess the effectiveness of video-assisted teaching on knowledge regarding Neonatal Resuscitation. Self-Structural questionnaire will be constructed on the basis of review of literature, clinical experience, expert opinion, and suggestions of the research panel.

**Schematic representation of research methodology**



**Analysis and interpretation of data**

This chapter deals with analysis and interpretation of data collected to assess the effectiveness of Video-assisted teaching on knowledge regarding Neonatal Resuscitation among nursing students in selected college of Jammu. Analysis and interpretation were done accordance with the objective laid down for the study. The Data was analyzed by using descriptive and inferential statistics.

**Objectives**

1. To determine the existing knowledge regarding Neonatal Resuscitation among nursing students in selected college of Jammu.
2. To find out the effectiveness of Video- assisted teaching on knowledge regarding Neonatal Resuscitation among nursing students in selected college of Jammu
3. To find out the association between pre test knowledge score of nursing students regarding Neonatal Resuscitation with their selected Socio-demographic variables

**Organization of data**

The analysis of data is done in accordance with objectives of the study. Data is interpreted using descriptive and inferential statistics. The data is organized and presented under the following sections:

**Section I (A):** Frequency and percentage distribution according to socio-demographic variables

**Section I (B):** Frequency and percentage distribution of pre test and post test level of knowledge regarding Neonatal Resuscitation among nursing students in selected college of Jammu

**Section II (A):** Comparison of pre test and post test level of knowledge regarding Neonatal Resuscitation among nursing students in selected college of Jammu

**Section II (B):** Association between the pre test level of

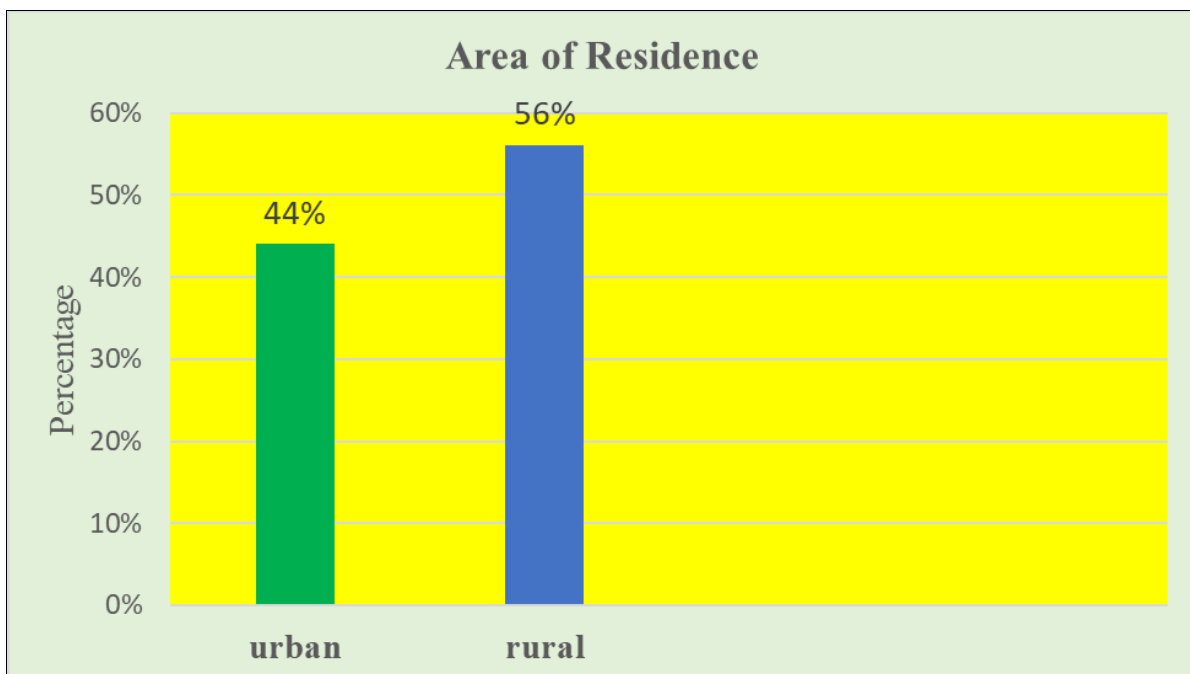
knowledge with selected socio demographic variables

**Section- I(A)**

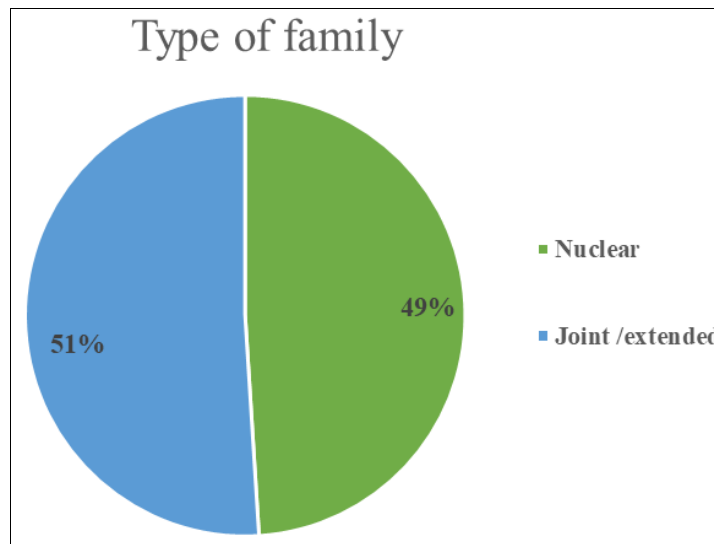
**Table 1:** Frequency and percentage distribution of socio demographic variables N=100

S. No.	Socio-Demographic variables	f (%)
1	<b>Age (in years)</b>	
	21-22	47(47%)
	23-24	46(46%)
	>25 years	7(7%)
2.	<b>Gender</b>	
	Male	46 (46%)
	Female	54 (54%)
3	<b>Type of family</b>	
	Nuclear	49 (49%)
	Joint/ extended family	51(51%)
4	<b>Area of residence</b>	
	Urban	44 (44%)
	Rural	56 (56%)
5	<b>Source of information</b>	
	Mass media	34 (34%)
	Teachers, staff nurses	66 (66%)
6	<b>Marital status</b>	
	Married	4 (4%)
	Unmarried	96 (96%)

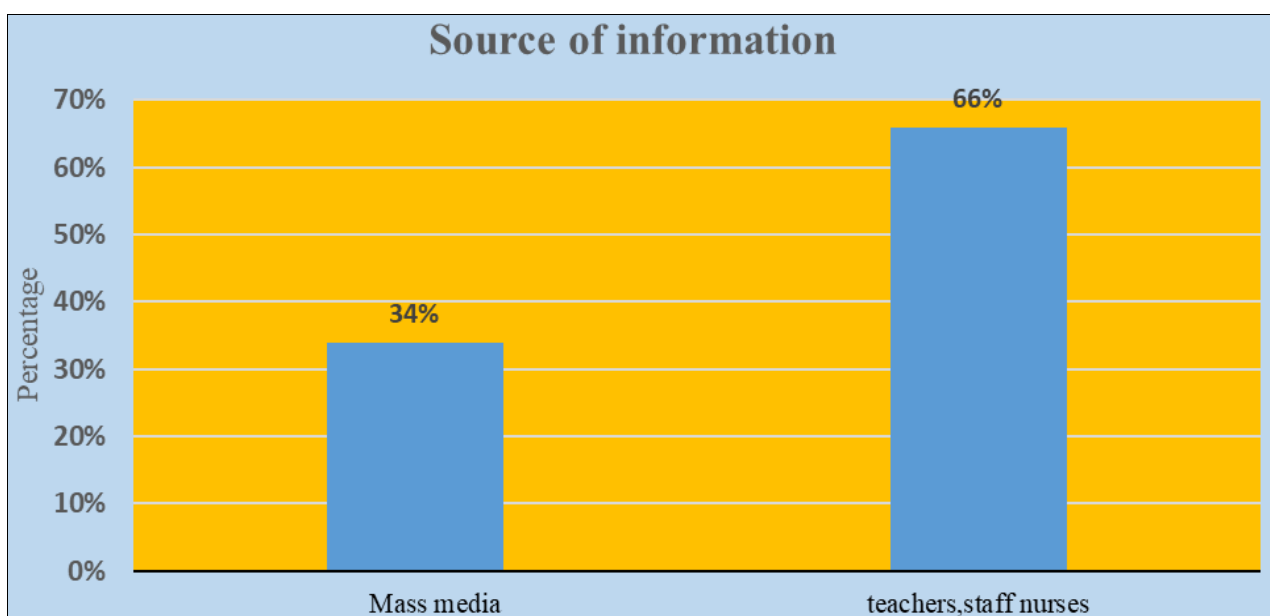
Table 1, depicts frequency and percentage distribution of nursing students according to their socio demographic variables. As per age, 47(47%), 46 (46%), 7(7%) of study subjects were in age group of 21-22 years, 23-24 years and ≥ 25 years of age respectively. 54(54%) were female and (46%) were male. 51(51%) of subjects were from joint/ extended family and 49(49%) from nuclear family. 56(56%) of subjects were from Rural areas, and 44 (44%) of subjects were from urban areas. Source of information of 66(66%) were teachers and staff nurses, 34(34%) was Mass media. 96(96%) of subjects were Unmarried and 4(4%) subjects were married.



**Fig 1:** Bar diagram showing percentage distribution according to area of residence.



**Fig 2:** Pie chart showing percentage distribution according to type of family.



**Fig 3:** Bar diagram showing percentage distribution according to source of information.

**Section-I(B):** (Frequency and percentage distribution of pre test and post test level of knowledge regarding Neonatal Resuscitation among nursing students in selected college of

Jammu) This section describes frequency and percentage distribution of pre and post-test level of knowledge of nursing students.

**Table 2:** Frequency and percentage distribution of pre test level of knowledge of nursing students.

Level of Knowledge Maximum score=30 Minimum score=00	Pre Test level of Knowledge (f %)	Post test level of knowledge (f)%
Adequate knowledge (23-30)	-	(98)98%
Moderate knowledge (15-22)	34(34%)	(2)2%
Inadequate knowledge (0-15)	66(66%)	-

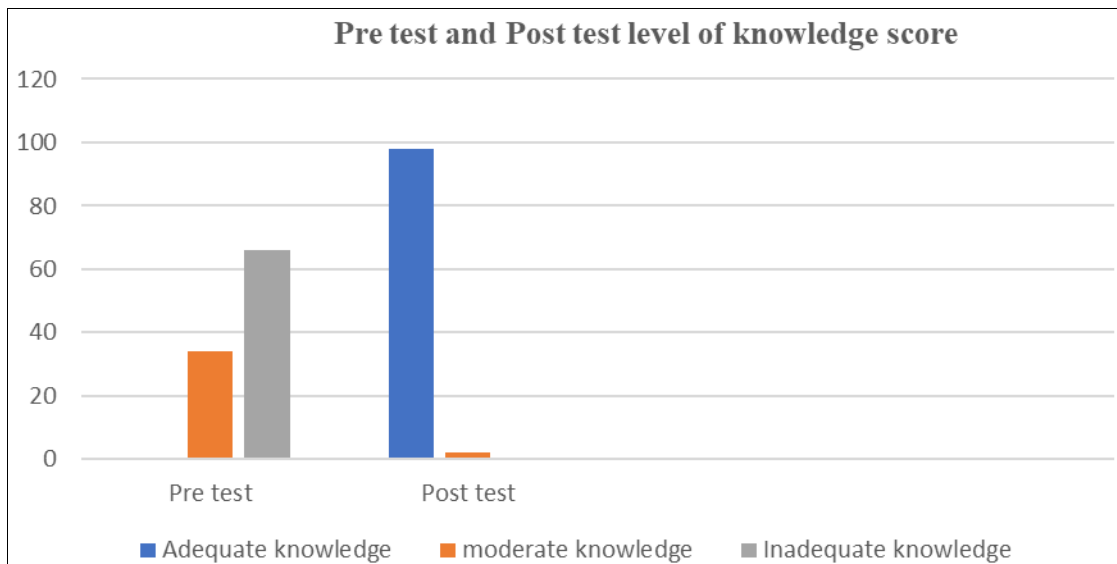
\*Pre test level of knowledge: (Mean ± SD) Median: (13.53 ± 2.5602)13

\*Post test level of knowledge: (Mean ± SD) Median: (28.84 ± 1.9001)30

**Table 2** is showing the frequency and percentage of pre-test and post test level of knowledge regarding Neonatal Resuscitation among nursing students in selected college of Jammu. In pre test, 66% of nursing students had inadequate knowledge and 34% of nursing students had moderate

knowledge regarding Neonatal Resuscitation. Where as in post test, maximum 98% of nursing students were having adequate knowledge, 2% of nursing students were having moderate knowledge, 0% of nursing students were having inadequate knowledge.





**Fig 4:** Histogram showing pre test and post test level of knowledge score

**Table 3:** Range, Mean, Median, Standard Deviation of pre-test knowledge scores and post-test knowledge scores of nursing students. N=100

	Level of knowledge	Range	Mean	Median	SD
Pre test level of knowledge	Adequate knowledge	23-30	13.53	13	2.5602
	Moderate knowledge	15-22			
	Inadequate knowledge	>15			
Post test level of knowledge	Adequate knowledge	23-30	28.84	30	1.9001
	Moderate knowledge	15-22			
	Inadequate knowledge	>15			

**Maximum score=30, Minimum score=00**

Table 4 is showing the mean, median and standard deviation of pre test and post test level of knowledge regarding Neonatal Resuscitation among nursing students in selected college of Jammu. The pre- test level of knowledge mean score was 13.53, median score was 13 and SD was 2.5602. The post- test level of knowledge mean score was 28.84, median score was 30 and SD was 1.9001.

**Section- II(A)**

**Comparison of pre test and post test level of knowledge regarding Neonatal Resuscitation among nursing students in selected college of Jammu.**

This section describes the significant difference between mean pre-test and post-test knowledge of nursing students.

In order to find out the significant difference between knowledge score of nursing students, following hypothesis was tested.

- **H<sub>0</sub> 1:** There will be no significant difference between pre-test and post test knowledge score regarding Neonatal Resuscitation.
- **H<sub>0</sub> 2:** There will be no significant difference between pre test knowledge score and demographic variables.
- **H<sub>1</sub>:** There will be significant difference between pre test and post test knowledge score regarding Neonatal Resuscitation.
- **H<sub>2</sub>:** There will be significant difference between pre- test knowledge score and selected socio-demographic variables.

**Table 4:** Comparison of mean pre-test and post test level of knowledge regarding Neonatal Resuscitation among nursing students in selected college of Jammu. N=100

Level of Knowledge	Mean	Median	Standard Deviation	Df	P Value	Paired t test
Pre Test	13.53	13	2.5602	99	<0.0001	45.21*
Post Test	28.84	30	1.9001			

\*significant at  $p \leq 0.05$  \*\*NS- Non significant ( $p > 0.05$ )

Table 5 shows the effectiveness of video-assisted teaching on knowledge regarding Neonatal Resuscitation among nursing students in selected colleges of Jammu. The pre-test knowledge mean score was 13.53 and the post-test knowledge mean score was 28.84 and t value obtained (45.21) was found to be statistically very highly significant at 0.05 level of significance.

Thus it is established that the mean post-test knowledge score was greater than the mean pre-test knowledge score,

which shows the effectiveness of video-assisted teaching? Hence research hypothesis H<sub>1</sub> is accepted.

**Section II(B)**

**Association between pre-test knowledge of nursing students with their selected socio-demographic variables.**

This section describes the association of level of knowledge scores of nursing students regarding Neonatal Resuscitation and the following hypothesis was tested.

**Table 5:** Association of pre-test level of knowledge of nursing students with their socio-demographic variables.

Sr. no	Socio-demographic variables	level of knowledge			X <sup>2</sup> , df, p-value
		Adequate	Moderate	Inadequate	
1.	Age (in years)			0.1618, 3, 0.983	
	19-20	-	-		-
	21-22	-	17		30
	23-24	-	18		28
	>25 years	-	3	4	
2.	Gender			0.0999, 1, 0.751	
	Male	-	19		27
	Female	-	24		30
3.	Type of family			1.4493, 1, 0.2286	
	Nuclear	-	24		30
	Joint/ extended family	-	26	20	
4.	Area of residence			1.0643, 1, 0.302	
	Urban	-	19		30
	Rural	-	25		26
5.	Source of information			4.0406, 1, 0.044*	
	Mass media	-	5		9
	teachers, staff nurses	-	12		74
6.	Marital status			7.5815, 1, 0.0059*	
	Married	-	3		2
	Unmarried	-	13		82

Table 6 showing the association of socio- demographic variables and the level of knowledge of nursing students revealed that there was significant association of level of knowledge ( $p < 0.05$ ) with Source of information, Marital status. Hence research hypothesis  $H_2$  is accepted for Source of information, Marital status. 9(9%) had inadequate knowledge and 5(5%) had moderate knowledge whose source of information was mass media. 74(74%) had inadequate knowledge and 12(12%) had moderate knowledge whose sources was teachers and staff nurses. Among those who were married, 2(2%) had inadequate knowledge and 3(3%) had moderate knowledge. Maximum 82 (82%) have inadequate knowledge who were unmarried. There was no significant association of level of knowledge with sociodemographic variables i.e age, gender, type of family, area of residence, professional qualification and clinical posting in pediatric unit.

### Conclusion

The process of supporting and maintaining respiration and circulation for a baby whose heart has stopped or whose breathing has stopped is known as newborn resuscitation. 43 Verify that the appropriate tools are on hand. The infant has to be in a radiant heater. Three questions are asked in the initial stage of newborn resuscitation to ascertain the baby's condition. Determine if the infant is breathing or crying, if the youngster has a decent tone, and whether the gestation is term. Use towels to pat the infant dry, position and open the upper airway, and gently touch or flick their heels to stimulate.

Cardio-pulmonary resuscitation is a potential lifesaver because it is associated with survival and has the potential to prevent sudden death. All healthcare providers who are in

contact with patients should have regular resuscitation training as recommended by American Heart Association (AHA) resuscitation guidelines. Effective resuscitation of the newborn infant needs adequate training and preparation of nursing students. Effective resuscitation can save the newborn life. So, for providing CPR nurses should have good knowledge as well as skills.

### Conflict of Interest

Not available

### Financial Support

Not available

### References

- Choudhary P. Neonatal resuscitation program, first golden minute. J Indian Pediatr. 2011 Dec 3;46(3):7-9.
- Rehana M, Khan MM, Khan N, *et al.* Risk factors of birth asphyxia. J Ayub Med Coll Abbottabad. 2007 Jul-Sep;19(3):67-71.
- Lawn JE, Cousens S, Zupan J. 4 million neonatal deaths: when? Where? Why? Lancet. 2005 Mar 5;365(9492):891-900.
- Pileggi Castro Souza C. Neonatal care. J Pediatr (Rio J). 2010 Jan-Feb;86(1):21-26.
- World Health Organization. Care in normal birth. AIMS J. 1997 Jul 31;9(2):24-25.
- Park K. Textbook of preventive and social medicine. 3<sup>rd</sup> ed. Jabalpur: M/s Banarsidas Bhanot; 2002. p. 391.
- UNICEF. Neonatal mortality [Internet]. 1990 [cited 2025 Jan 17]. Available from: <http://data.unicef.org/child-mortality/neonatal-resuscitation>

8. Lawn JE, Lee AC, Kinney M, *et al.* Two million intrapartum stillbirths and neonatal deaths: where, why, and what can be done? *Int J Gynaecol Obstet.* 2009 Oct;107 Suppl 1:S5-18, S19.
9. Gale Encyclopedia of Child Health. 3<sup>rd</sup> ed. Detroit: Gale Group; c2016 May 6.
10. Salhan S. Textbook of obstetrics. New Delhi: Jaypee Brothers Ltd; 2007. p. 517.

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