



## “A Comparative Study to Assess Effectiveness of Demonstration Vs Video Assisted Teaching Program Regrading Newborn Resuscitation Among General Nursing and Midwifery Students in Selected Institutes”

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*(Received: 16 September 2024*

*Revised: 11 October 2024*

*Accepted: 04 November 2024)*

### KEYWORDS

Assess,  
Effectiveness,  
Demonstration  
, Video  
Assisted  
Teaching  
Program,  
Newborn  
Resuscitation.

### ABSTRACT:

**Introduction:** New born are considered to be tiny and powerless beings, completely dependent on others for their adaptation in the external environment.

**Objectives:** This study aims to evaluate the effectiveness of demonstration vs video assisted teaching program on knowledge and practice among General Nursing and Midwifery students from selected instituted about newborn resuscitation.

**Methods:** Quasi-experimental study was conducted to assess effectiveness of demonstration vs video assisted teaching program regrading newborn resuscitation among General Nursing and Midwifery students in selected institutes. Two group pretest and post-test research design with quantitative approach was adopted. Non-probability convenient sampling technique was used to select 60 samples from General Nursing and Midwifery students in selected institute (30 for Demonstration and 30 for Video). Tool consisted of demographic variables, structured questionnaire, and video. The pilot study was conducted on 20 samples of General Nursing and Midwifery Students in Dhareshwar Institute of Nursing Dhayari, Pune. Data collection was done on 17th May 2024 to 26th May. The knowledge and Practices were assessed regarding Newborn Resuscitation. The data analysis was planned to included descriptive and inferential statistics

**Results:** In demonstration group, during pretest, 70% of the students had poor practice and 30% of them had average practice about new born resuscitation. In posttest, 66.7% of the students had average practices and 33.3% of them had good practices regarding new born resuscitation. In demonstration group, average knowledge score in pretest was 7.9 which increased to 13 in posttest. In video group, average knowledge score in pretest was 8.7 which increased to 11.9 in posttest.

**Conclusions:** The study concluded that the video assisted method is significantly effective in improving the knowledge among General Nursing and Midwifery students regarding newborn resuscitation.



## 1. Introduction

Birth is a beautiful, miraculous and very personal event for all involved and it is a natural challenge and a transition which starts from the intrauterine life to extra uterine life. It's an intimate and emotional time for a new mother and father when the baby they created together makes that first cry. Most babies go through this transition successfully as a matter of routine; however, 10 percent of babies who do not start breathing immediately and spontaneously result in birth asphyxia and need assistance at this time which would be a crucial impediment for saving these babies. The interventions require may range from simple tactile stimulation to complex cardiac pulmonary resuscitation.<sup>1</sup>

The heart is the center of cardiovascular system and it vitally responsible for just about everything that gives body life ranging from the transportation of oxygen to the success of the immune system. The heart is a muscular organ that functions as the body's circulatory pump. It takes in deoxygenated blood through and delivers it to the lungs for oxygenation before pumping it into the various arteries which provides oxygen and nutrients to body tissues by transporting the blood throughout the body.<sup>2</sup>

In newborns, the most common cause of cardiopulmonary arrest is respiratory failure caused by fetal distress, meconium-stained liquor, placental insufficiency, premature onset of labor, ante-partum hemorrhage, mal-presentation, operative delivery, cord prolapsed, rhesus isoimmunization and multiple gestations. Resuscitation must be performed if a neonate is unconscious and not breathing, by a trained health care professional within four to six minutes after cessation of breathing to prevent brain damage or death.<sup>3</sup>

A recent review showed that the leading causes of mortality and disability of neonates in Arab countries which are lack of neonatal asphyxia prevention and management have directly impacted the nursing and midwifery professions. World Health Organization has consistently raised concerns about infant morbidity and mortality rate. Although the presence of skilled midwives at birth is a key component in improving life chances of newborns with asphyxia, this component of care remains a challenge that defies implementation in developing countries. Inaction to implement newborn resuscitation education and competency assessment

remains problematic due to limited availability of equipment, and a lack of standardized continuing professional education, skill development programmers and protocols. In addition, a lack of resources and training is a major contributor also to ineffective newborn resuscitation in some developing countries. Midwives have a crucial role in improving newborn outcomes through appropriate knowledge and skilled resuscitation, but little is known about midwives' resuscitation competence and knowledge.<sup>4</sup>

A descriptive study was conducted at Dames College of Nursing, Faridkot on 58 nursing students to assess the knowledge regarding neonatal resuscitation among nursing students. Questionnaire was prepared to assess the knowledge regarding neonatal resuscitation. Sampling technique was non-probability purposive sampling selected for the study. The data was collected and analyzed by using by descriptive and inferential statistics. The study results revealed that the majority of students had average knowledge (60.34%), good knowledge (31.03%) and poor knowledge (8.62%). There is significant association between gender, class of students and profession of parents but non-significant association between age, source of information, and previous exposure to neonatal resuscitation, previous year score and interest of students in subject. The study concluded that newborn resuscitation should be an integral part of continuing education for all personnel involved in neonatal care because it improves both knowledge and performance<sup>5</sup>

They researcher suggested that reinforcement of the knowledge and practice should be continued for the health professionals.

## 2. Methods

Objectives of the study were: OBJECTIVES OF THE STUDY

1. To assess the knowledge among General nursing and midwifery students from selected instituted about newborn resuscitation.
2. To assess the practices among General Nursing and Midwifery students from selected instituted about newborn resuscitation
3. To evaluate the effectiveness of demonstration vs video assisted teaching program on knowledge and



practice among General Nursing and Midwifery students from selected institutes about newborn resuscitation.

4. Compare the effect of demonstration vs video assisted teaching program on knowledge and practice among General Nursing and Midwifery students from selected institutes about newborn resuscitation.

## HYPOTHESIS

H0: -There is no significant difference between effectiveness of demonstration and video assisted teaching program.

H1: - There is significant difference between effectiveness of demonstration and video assisted teaching program.

## RESEARCH APPROACH

This research approach used for this study is Quantitative approach.

## RESEARCH DESIGN

The Research design used for this study is Two group pretest post-test which is Quasi-Experimental Design research design.

## VARIABLES OF STUDY

- Independent variable -

The independent variable in this study is 'Demonstration vs video assisted teaching program regarding Newborn Resuscitation.

- Dependent variable -

The dependent variable in this study are knowledge and practices regarding newborn resuscitation.

## SETTING OF THE STUDY

This study was conducted on students of General Nursing and Midwifery from selected institutes in Pune.

## TARGET POPULATION

The target population for the current study was students studying in General Nursing and Midwifery at selected institutes.

## SAMPLE SIZE

In this study the sample size was 60 students studying in General Nursing and Midwifery students in selected institutes.

## SAMPLING TECHNIQUE

Non-probability convenient sampling technique was used.

## SAMPLING CRITERIA

### Inclusion criteria

- Students willing to participate in this study.
- General Nursing and Midwifery students who are available during the period of data collection.

### Exclusion criteria

- Students who are repeater in the same class.
- Students studying in other nursing courses.

## TOOLS AND TECHNIQUES OF DATA COLLECTION

The consent was obtained from study participants before data collection and then structured questionnaire regarding demographic variables & knowledge questionnaire was administered to assess the level of knowledge of Nursing students.

## DESCRIPTION OF THE INSTRUMENT

Part I: Demographic variables such as Age, Sex, Educational stream in HSC, Previous Academic score.

Part II: It consists of 20 questions and video and checklist related to knowledge and practices of Newborn Resuscitation.

## TOTAL SCORE INTERPRETATION GRADEPERCENTAGE SCORE

GRADE	PERCENTAGE	SCORE
Poor	25% and below	2 and below
Average	26%-50%	3-4
Good	51%-75%	5-6
Excellent	76%-100%	7-8

## RELIABILITY

Reliability was assessed using test-retest method. Pearson's correlation coefficient was 0.90 & tool was found reliable.

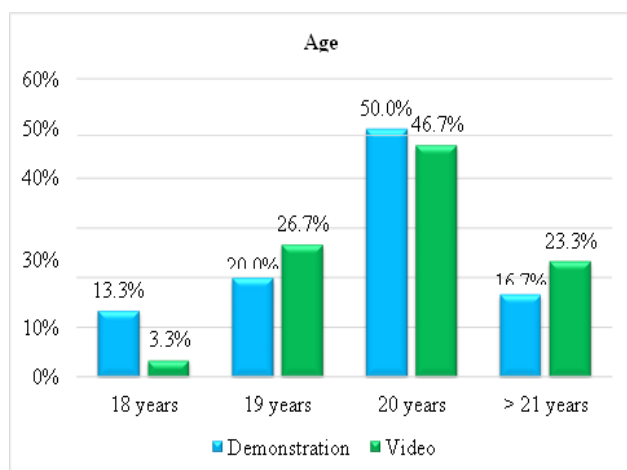


**PLAN FOR DATA ANALYSIS**

The collected data was analysed by using descriptive and inferential statistics.

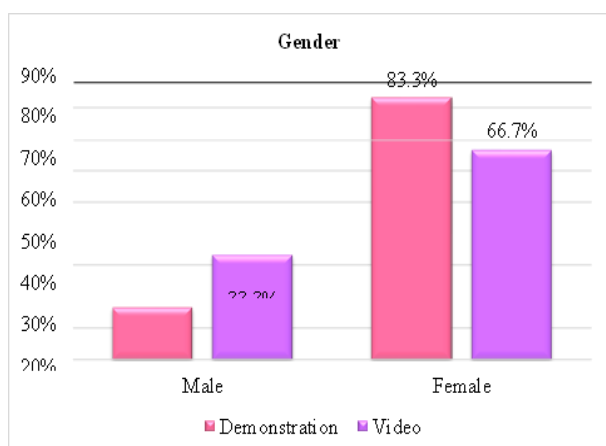
**3. DATA ANALYSIS AND INTERPRETATION**

Description of samples (General Nursing and Midwifery Students) based on their personal characteristics



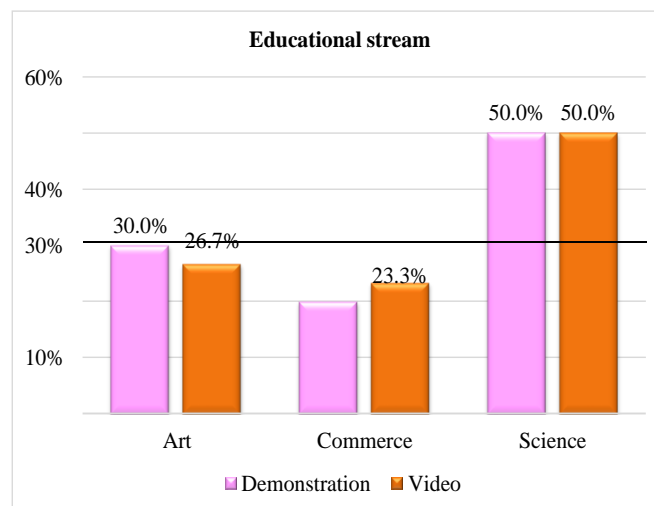
**Figure No. 1: Description of samples based on their personal characteristics (Age)**

In demonstration group, 50% of them had age 20 years. In video group, Students 46.7% of them had age 20 years.



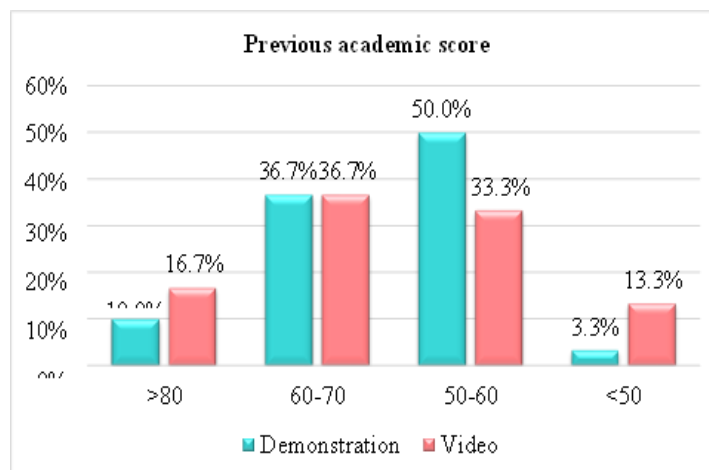
**Figure No. 2: Description of samples based on their personal characteristics (Gender)**

In demonstration group 83.3% of them were females. In videogroup 66.7% of them were females.



**Figure No. 3: Description of samples based on their personal characteristics (Educational stream).**

In demonstration group, 50% of them were from science stream. In video group, 50% of them were from science stream.



**Figure No. 4: Description of samples based on their personal characteristics (Previous academic score).**

In demonstration group, 50% of them had previous academic score 50-60. In video group, 36.7% of them had previous academic score 60-70, 33.3% of them had previous academic score 50-60.

**Analysis of data related to the knowledge among General nursing and midwifery students from selected institutied about newborn resuscitation**



**Table 2: Knowledge among General nursing and midwifery students from selected institutes about newborn resuscitation N=30, 30**

Knowledge	Demonstration		Video	
	Pretest		Pretest	
	Freq	%	Freq	%
Poor	13	43.3%	7	23.3%
Average	15	50.0%	21	70.0%
Good	2	6.7%	2	6.7%

In demonstration group, 50% of them had average knowledge. In video group, 70% of them had average knowledge regarding new born resuscitation.

**Table 3: Practices among General Nursing and Midwifery students from selected institutes about newborn resuscitation N=30, 30**

Practices	Demonstration	
	Freq	%
Poor	21	70.0%
Average	9	30.0%
Good	0	0.0%

In demonstration group, 70% of the General nursing and midwifery students had poor practices and 30% of them had average practices regarding new born resuscitation.

**Table 4: Effectiveness of demonstration vs video assisted teaching program on knowledge and practice among General Nursing and Midwifery students from selected institutes about newborn resuscitation.**

Knowledge	Demonstration				Video			
	Pretest		Posttest		Pretest		Posttest	
	Freq	%	Freq	%	Freq	%	Freq	%
Poor	13	43.3%	0	0.0%	7	23.3%	0	0.0%
Average	15	50.0%	20	66.7%	21	70.0%	24	80.0%
Good	2	6.7%	10	33.3%	2	6.7%	6	20.0%

In demonstration group, in pretest, 50% of them had average knowledge. In post-test, 66.7% of the students had average knowledge. In video group, in pretest, 70% of them had average knowledge.

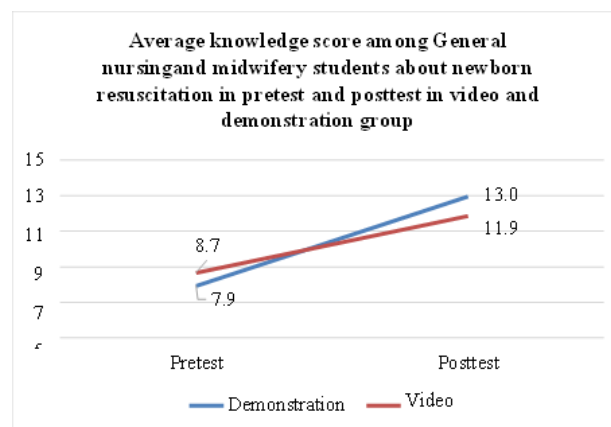
In post-test, 80% of them had average knowledge. This indicates that demonstration and video method both improved knowledge among General Nursing and Midwifery students regarding newborn resuscitation.

**Table 5: Effectiveness of demonstration vs video assisted teaching program on practices among General Nursing and Midwifery students from selected institutes about newborn resuscitation. N=30**

Practices	Pretest		Posttest	
	Freq	%	Freq	%
Poor	21	70.0%	0	0.0%
Average	9	30.0%	20	66.7%
Good	0	0.0%	10	33.3%

In demonstration group, in pretest, 70% of the students had poor practices and 30% of them had average practices regarding new born resuscitation.

In post-test, 66.7% of the students had average practices and 33.3% of them had good practices regarding new born resuscitation.



**Figure No 5: Paired t-test for the effectiveness of demonstration and video assisted teaching program on knowledge among General Nursing and Midwifery students from selected institutes about newborn resuscitation.**



## Midwifery students from selected instituted about newborn resuscitation

In demonstration group, average knowledge score in pretest was 7.9 which increased to 13 in post-test. T-value for this test was 8.8 with 29 degrees of freedom. Corresponding p-value was small (less than 0.05), the null hypothesis is rejected.

It is evident that the demonstration method is significantly effective in improving the knowledge among students regarding new born resuscitation.

In video group, average knowledge score in pretest was 8.7 which increased to 11.9 in post-test. T-value for this test was 4.6 with 29 degrees of freedom.

Corresponding p-value was small (less than 0.05), the null hypothesis is rejected. It is evident that the video assisted method is significantly effective in improving the knowledge among General Nursing and Midwifery students regarding new born resuscitation.

## 4. Discussion

This comparative study was conducted with the aim to assess the effectiveness of demonstration program on neonatal resuscitation among the nurses at Paediatric and Obstetrics and Gynaecology departments of selected hospitals in Pune. Purposive sampling technique was used to select 120 samples, 60 in the experimental group and 60 in the control group. Non standardized self-structured multiple-choice questionnaire (Demographic Performa, Observation Checklist) was used to collect the data. Descriptive statistics (Frequency, Percentage, Means and Standard Deviations) and inferential statistics (Chi square, independent t-test, Correlation coefficient, and Paired t-test) were used to analyzed the data and to test the hypothesis. The result of the study showed that the demonstration program is an effective method to increase the practices of nurses relating to neonatal resuscitation.

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