"Effectiveness Of Demonstration On Neonatal Mask Ventilation Skills Among GNM Iii[rd] Year Nursing Students In Selected Index Nursing College, Indore (M.P.)"

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ABSTRACT:

Background: birth of a healthy newborn baby is one of the greatest gifts of nature. After birth, the newborns undergo many changes. Majority of the newborns handle the transition well, between 5%–10% of all babies born need some degree of resuscitation. Approximately 3%–6% require basic neonatal resuscitation, consisting simple initial steps and assisted ventilation. As newborn resuscitation is a key component of effort to reduce neonatal mortality occurring due to birth asphyxia, the nursing students as future nurses should possess knowledge and skills to overcome the barriers of providing newborn resuscitation. **Objective:** to evaluate the effectiveness of demonstration on skills regarding bag and mask ventilation in neonates among gnm nursing students. **Methodology:** an observation checklist regarding bag and mask ventilation given by who was used for data collection with the help of demonstration method. A pre- experimental study one group pretest post test design was used. Pre and post-test data was collected conveniently selected 40 nursing students of gnm nursing 3rd year from index nursing college, indore (mp). **Results:** findings of the study revealed that majority of the nursing students (70.8%) were females and majority of nursing students (90.2%) had previous knowledge regarding bag and mask ventilation in neonates but majority of nursing students(79.16%) had not performed bag and mask ventilation during their clinical experience. The mean post-test skill score (12.7) was higher than the mean pre-test skill score (2.2). And the computed paired t test value (t 39 21 p> 0.05) is more than the tabulated value (t_{39}= 4.78, $p < 0.05$) shows that there was a significant difference between pre-test and post-test skill score.it was therefore dismissed the null hypothesis and accept the research hypothesis. Study was effective.the skills of nursing students were significantly associated with previous knowledge (= 8.35) and Number of ventilations performed previously (=9.53). **Conclusion:** the study concludes that demonstration regarding bag and mask ventilation was effectiveness. Very effective in improving the skills of nursing students regarding bag and mask ventilation in neonates.

Keywords: Effectiveness, Bag and Mask ventilation in neonates, Skills, Demonstration, GNM.

INTRODUCTION:

1.1 Background of the study: A vital component of human existence, oxygen is essential. Our organs, including the brain and other bodily components, will perish without it. The fetus receives oxygen from the placenta prior to birth. The child must go through significant physiological changes to take his first breath, nevertheless, since the umbilical cord is slotted and tightened by artery forceps after delivery. Neonates effectively achieve this shift without assistance in at least 90% of cases. Approximately 10% of babies need some help breathing at delivery, and 1% or more may need intense resuscitation.

Bag-valve-mask (BVM) ventilation is a crucial emergency skill for managing airways in patients unable to establish definitive airways. It is ideal for pediatric patients and operating room ventilation. Factors predicting difficult ventilation include facial hair, teeth, BMI, age, and snoring history. Mask sizes help create a good seal Nursing student.

1.2 NEED OF THE STUDY: Neonatal deaths, primarily during the first week, account for 75% of deaths, with premature birth, birth complications, infections, and congenital anomalies accounting for nearly 4 in 10 deaths in children under 5. Despite declining rates since 2000, access to quality healthcare remains a critical concern for mothers and newborns worldwide.

When performing bag and mask ventilation (BVM) on a newborn, the recommended rate is 40 to 60 breaths per minute. This rate is typically used during initial resuscitation efforts for newborns who are not breathing spontaneously or who are experiencing respiratory depression.

GNM Nursing students often struggle with basic skills, leading to anxiety and self-esteem issues. Training on neonates mask ventilation skills can improve knowledge, practice, attitudes, self-efficacy, and anxiety management, requiring regular theoretical and applied training.

1.3 PROBLEM STATEMENT: A Pre-experimental study to assess effectiveness of Demonstration on neonatal mask ventilation skills among GNM III rd nursing students in selected INDEX nursing college Indore

1.4 OBJECTIVES :

1. To assess the mean pre-test skill score regarding neonatal mask ventilation among GNM IIIrd nursing students
2. To evaluate the effectiveness of Demonstration on neonatal mask ventilation skills among GNM III rd nursing students.
3. To find out association between pre-test skill score with selected demographic variables .

1.5 HYPOTHESISIS:

H$_0$: The mean post skill scores will be not significantly higher than pre test skill score of GNM III rd Nursing students regarding Demonstration on Bag-mask ventilation skill at 0.05 level of significance.

H$_1$: The mean post test skill scores will be significantly higher than pre test skill score of GNM III rd Nursing students regarding Demonstration on Bag-mask ventilation skill at 0.05 level of significance.

1.6 METHODOLOGY: A pre-experimental approach was adopted with one group Pre-test Post-test design. Convenient sampling technique was used to select 40 GNM IIIrd nursing students of INDEX College of Nursing, Indore. Assessment of the skills of GNM nursing students was done through Observational Checklist on Bag and Mask Ventilation given by WHO which was modified according to the expert's guidance and opinion. Level of skills was classified as Good (>80%), Fair (65-80%), Average (51-65%), Poor (<50%) Pre-test assessment of skills was done through demonstration on Bag and Mask ventilation in neonates was given .

1.7 RESULT AND DISCUSSION:

Socio-demographic Characteristics of Nursing Students- Majority of GNM nursing students were female (70.83%).. Majority of GNM nursing students (54.16%) got information regarding bag and mask ventilation through demonstration followed by 45.83% who got information from books. Majority of nursing students(79.16%) had not performed bag and mask ventilation during their clinical experience and of 20.83%GNM nursing students who had performed bag and mask ventilation during their clinical posting, performed it 1-2 times only (16.6%). Evaluation of effectiveness of Demonstration in terms of skills of nursing students: shows that in pre-test, majority of the nursing students (76.38%) had poor skills whereas in post-test, majority of GNM nursing students possess good skills regarding bag and mask ventilation in neonates i.e. 85%.

Table :01 Mean, Standard Deviation and paired 't' value of pre-test and post-test skill score (N=40)

Practice score	Mean	Standard deviation	Mean difference	't' value
Pre-test	2.2	0.77	10.5	21
Post-test	12.7	5.21		

df=39 , 't"=4.78, p<0.05significant**

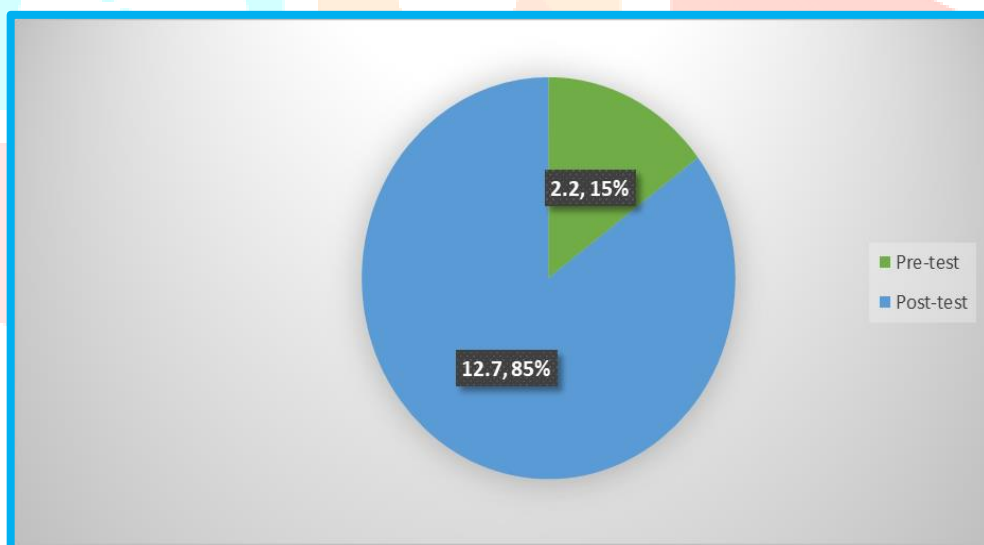
figure.1 pie diagram showing comparison of pre-test and post-tests kill score.

INTERPRETATION:

The data presented in this Table No. 2 shows that the mean post-test skill score (12.7) was higher than the mean pre-test skill score (2.2). and the computed paired t test value (t $_{39}$ 21 P> 0.05) is more than the tabulated value (t$_{39}$= 4.78, P < 0.05) shows that there was a significant difference between pre-test and post-test skill score. It was therefore dismissed the null hypothesis and accept the research hypothesis. study was effective.

7. NURSING IMPLICATIONS : The findings of the study have implications in various areas of nursing service, nursing education, community and home care services.

1. Nursing service :

- Nurses working in maternity department can utilize technique such as individual and group teaching to performed bag and mask ventilation.
- Educational programme can be conducted regularly in hospitals.

- students can participate in the performed bag and mask ventilation skill among neonates. It is important role of trainee nurse to render information through health education in simple ways to enhance the knowledge. • Nurses in the maternity setting should be instructed to assess the level of knowledge regarding care of neonate at the time of emergencies.

- The education can be a protocol to all nurses to update their knowledge in symptom management with regard to recent advances.

- In community, the community health nurse can utilize this skill training programme for educating the care givers.

- The findings of the study will help the nursing professional working in the hospitals to gain the knowledge of staff nurses and help in which they lack knowledge can be conducted for teaching.

- It can be utilized for assess the knowledge of the periphery level nurses on performed bag and mask ventilation emergencies.

NURSING EDUCATION :

- Students can utilize the educational program to up lift their knowledge regarding care of patient.

- Periodic seminars and group discussion can be arranged on new strategies regarding care of the neonates and performed bag and mask ventilation.

- The nurse educator can use the tool to teach the student about performed bag and mask ventilation.

- A module can be prepared based on present findings for improve the knowledge of the staff nurses on performed bag and mask ventilation.

NURSING ADMINISTRATION: The findings will help the nursing student to understand about the importance of performed bag and mask ventilation e their knowledge neonates emergencies Nursing Administration is a complex disease that requires the efforts and skills of all members of the multidisciplinary team. Rapid recognition and treatment for the womens with emergencies can improve clinical outcomes. A coordinated multidisciplinary effort is necessary to accomplish this goal. The establishment of a nurses team and adherence to the recommendations for a mass media education can provide a clear framework for development of a successful program. Nurses are often responsible for the coordination of care throughout the continuum.

NURSING RESEARCH :

- The findings of the study help to expand scientific body of professional knowledge upon which further researches can be conducted.

- The findings of the study can be utilized for conducting research using large sample.

- Training to the care givers every one year should be recommended by the investigator.

- Interventions to support care givers by providing education, counseling, emotional support or help with accessing services by using information packages, social workers, specialist nurses or family support workers have shown little impact on patients and only modest improvements in psychological and social measures in care givers. Training care givers in skills essential for the day to day management .Hence more studies can be conducted in this area in order to strengthen the expanded role of nurses.

8. RECOMMENDATIONS:

✓ An information booklet can be prepared as a teaching aid in the hospital and health clinics.

✓ A longitudinal study can be done using post test after one month, six months and after one year to see the retention of the knowledge.

✓ A comparative study can be done between urban and rural areas.

✓ Similar study can be undertaken among large samples so that results can be generalized.

✓ A study can be done to evaluate the effectiveness of planned teaching program on performed bag and mask ventilation among neonates.

✓ An experimental study can be carried out by preparing bag and mask ventilation practices on neonatal emergencies.

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