A Study to Assess the Effectiveness of Basic Neonatal Resuscitation Programme Conducted by IAP in Terms of Knowledge and Skill among ANM 1st Year Students at P. G. College of Nursing, Bhilai (C.G.)

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***Abstract*: This paper presents the effect of basic neonatal resuscitation programme on knowledge and skill among auxiliary nurse midwife students.**

***Keywords*: Neonatal Resuscitation**

1. Introduction

"Every child that is born; it brings with it the hope that god is not yet disappointed with man"- Rabindranath Tagore

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 initial 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.

2. Background of study

Several important things happened to a baby at birth to enable it to make transition to extrauterine life, changes take place in the lungs to allow gas exchange from the fetus, to an air filled environment in which the baby's own cardiac pulmonary system has to independently function during birth for survival. In some new born this changes do not occur smoothly, and the new born do not starts breathing immediately and spontaneously, this state is called as birth asphyxia and it is precisely, the presence of this intermediate state between when the new born need resuscitation.

About one quarter of all neonatal deaths globally are caused by birth asphyxia. Birth asphyxia accounts for about 20.9% of approximately 5millon neonatal death that occur each year worldwide. In this document, birth asphyxia is defined simply as the failure to initiate and sustain breathing at birth so this suggest that the outcomes of more than 1million newborn per year might be improved via effective resuscitation at birth. Hence in order to provide optimal care and to ensure survival of newborn the health professional should have adequate knowledge and skill to resuscitate the newborn baby.

3. Aim

- To assess the pretest and post test knowledge regarding basic neonatal resuscititation programmme conducted by IAP among ANM 1st year students.
- To assess the pre test and post test skill regarding basic neonatal resuscitation programme conducted by IAP among ANM 1st year students.
- To assess the effectiveness of knowledge and skill of basic neonatal resuscitation programme conducted by IAP among ANM 1st year students.
- To find the association of pretest knowledge regarding basic neonatal resuscitation programme conducted by IAP with selected socio-demographic variables among ANM 1st year students.
- To find the association of pretest skill regarding basic neonatal resuscitation programme conducted by IAP with selected socio-demographic variables among ANM 1st year students.

4. Need for the Study

It is estimated that globally four million newborns die before they reach one month of age and out of which India contributes 1.0 million which accounts for 25% of the total neonatal deaths worldwide. The data on infant mortality rate was 29/1000 live birth in the year 2013. Among these 29 deaths, 16 were neonates and 13 were post neonates. In India 87 per/1000 live birth and in Tamilnadu 23% death occur during

International Journal of Research in Engineering, Science and Management
Volume-2, Issue-10, October-2019
www.ijresm.com | ISSN (Online): 2581-5792

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infant period. Karnataka 28.9% death occurs during neonatal period due to asphyxia. In resource poor areas, in difficult territories, paediatricians are rarely available to attend emergency deliveries. There, nursing staffs are the medical persons available to do neonatal resuscitation. However, in this study it is found that though they have some theoretical knowledge they have very poor practical knowledge in using bag–mask ventilation.

A community based exploratory survey was conducted in selected sub centres of Ambala district in Haryana. Sampling technique was Purposive and a Semi-structured; Interview schedule was used to interview 31 Auxiliary Nurse Midwives conducting delivery and rendering newborn care. Data was analyzed using descriptive statistics. Majority of the ANMs held the babies upside down & assessed for cry and colour to ascertain the life status of the babies. Cleaning & wrapping the baby in a warm towel was adopted correctly by majority of ANMs. When baby was not crying, most of the ANMs used unsafe practices of holding the baby upside down and slapping at the back and when the baby was not breathing; same number of ANMs gave mouth to mouth respiration. Some of them tried to resuscitate the baby for 10-15 minutes; when unsuccessful they made a decision for referral to the nearest PHC/CHC/Hospital. There is an urgent need to reorient ANMs and to educate them on safe delivery practices and care of baby at birth including neonatal resuscitation.

Hence education in resuscitation standard knowledge and skill that is focused for this health care provider is essential. Thus, workshops are needed on 'hands on' demonstration of the first one minute of neonatal resuscitation for the nursing staff. So as it is

One of the effective measure to prevent these deaths. Thus the investigator motivated it to undertake the present study.

5. Hypothesis

- *H1:* There will be significant difference between mean pretest and post test score of knowledge.
- *H2:* There will be significant difference between mean pretest and post test score of skill.
- *H3:* There will be significant association between pre test knowledge scores of ANM 1st year student with selected demographic variables.
- *H4:* There will be significant association between pre test skill score of ANM 1st year students with selected demographic variables.

6. Sample

40 ANM 1st year Students who are attending IAP at P.G. College of Nursing, Hospital Sector, Bhilai.

A. Sampling Technique

simple random sampling based on inclusion criteria.

B. Inclusive Criteria

1. ANM 1st year students.
2. ANM 1st year students who are willing to participate.
3. ANM 1st year students who are present at the time of study.

C. Exclusive Criteria

1. ANM 1st year students who are not willing to participate in the study.
2. ANM 1st year students who are not present at that time.
3. ANM 1st year students who have not attended the basic neonatal resuscitation programme.

7. Tool

1. A Structured questionnaire was used to find out the Socio demographic data.
2. Self-structured questionnaire to assess the knowledge of basic neonatal resuscitation among ANM 1st year student.
3. Observational checklist to assess the skill of basic neonatal resuscitation among ANM 1st year student.

8. Materials and Methods

The study was based on the conceptual frame-work of modified general system model. An evaluative research approach was adopted for study with pre experimental one group pre-test and post-test design. A self-structured questionnaires and checklist was developed for assessing the knowledge and skill of nursing students regarding basic neonatal resuscitation programme conducted by IAP. The sample was selected by using simple random sampling technique only those ANM students who attended IAP. The data obtained from studying the subject were analysed and interpreted in terms of the objective and hypothesis. Descriptive and inferential statistic was used for data analysis.

9. Result

Most of the samples 14(35%) belongs to age between 18-20 years. 30(75%) were 12th pass. About 27 (67.5%) were unmarried. And maximum students 26 (65%) were belonged to urban area.

- The effectiveness of knowledge and it was found to be significant as the obtained "t"value is 4.98 at degree of freedom 39 at $p > 0.05$ level of significance which is greater than the table value 1.24.
- The effectiveness of skill and it was found to be significant as the obtained "t" value is 18.5 at degree of freedom 39 at $p > 0.05$ level of significance which is greater than the table value 1.24.
- There is highly significant association between the age of students and their level of skill among ANM 1st year students regarding basic neonatal resuscitation programme as the calculated value i.e. 19.6 is more

International Journal of Research in Engineering, Science and Management
Volume-2, Issue-10, October-2019
www.ijresm.com | ISSN (Online): 2581-5792

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than the table value of chi square (3.84) at 5% level of confidence.

- There is also association between knowledge and their educational status related to basic neonatal resuscitation programme as the calculated value i.e. 8.0 is more than the table value of chi square (3.84) at 5% level of confidence.

A. Interpretation

1. The present study showed that there was significant difference between mean pre-test and post-test knowledge and skill of ANM 1st year students regarding basic neonatal resuscitation conducted by IAP hence H1 and H2 is accepted.
2. chi-square values of knowledge and skill score of ANM 1st year students regarding basic neonatal resuscitation and selected socio-demographic variables (age, educational status) was more than the table value at 0.05 level of significance hence H3 and H4 is accepted.

B. Implication of the study

The findings of the present study have implication in the field of nursing practice, nursing education, nursing research and nursing administration.

1. Nursing Practice
2. Nursing Education
3. Nursing Administration
4. Nursing Research

10. Limitation

- The study was confined to a small number of nursing students (40) attending IAP from P. G. College of Nursing, Bhilai, this limits the generalization of the finding of the study.
- The present study was limited to only one group pre-test, post-test and observation at an 1day interval after administration of programme. No attempt was made to measure the retention of knowledge gained and improved skill due to time constraints.
- The study sample was confined only to nursing students who were studying in P.G. College of nursing, Bhilai.

11. Recommendation

- The study can be replicated on a large sample of nursing personnel selected from other colleges/school of nursing. Thereby, finding can be generalized to a larger population.
- A similar study may be conducted with an experimental research approach.
- A study can be conducted to assess the attitude of nursing students towards the need for developing a positive attitude towards handling emergencies in the hospitals and community.
- A comparative study can be carried out on nursing personnel regarding basic neonatal resuscitation working in urban and rural hospitals setting.
- A study can be conducted in rural setting among auxiliary midwives, trained daies and birth attendants.
- A longitudinal study can be carried out to evaluate impact of knowledge regarding basic neonatal resuscitation.
- A comparative study can be done in different government and private nursing colleges.
- A comparative study can be done among nursing personnel working in clinics and hospitals.
- A study can be carried out on M.B.B.S doctors who are posted in rural setting.

12. Summary and Conclusion

This study deals with the summary and conclusion of the study, as well as its implication for the various nursing field such as nursing education, practice, administration and research followed by its limitations. This study ends with recommendations for further research in the same field.

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