

# A Study to Evaluate the Effectiveness of Structured Teaching Programme on Knowledge Regarding care of Low Birth Weight Babies among Staff Nurses in Selected Hospital, Gwalior

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## Abstract

*"There is no indicator in human biology, which tells us so much about the past events and the future trajectory of life, as the weight of infant at birth."*

Low birth weight is one of the most serious challenges in maternal and child health in both developed and developing countries. The lower birth weight; the lower survival chance. Main attention has been given in recent years to ways and means of preventing LBW through good prenatal care and intervention programs by our Indian government. But still rate of LBW baby is higher in our country. So now we are in position to take care of LBW baby in excellent manner.

The staff nurses have great role in reducing neonatal morbidity and mortality through the care of low birth weight baby because in the initial days they are the prime care givers to the new born baby. So nurses should have a proper knowledge about the care of LBW babies.

According to World Health Organization (WHO), globally about 25 million Low Birth Weight babies are born each year consisting of 17% of all live births. Approximately 16 to 18% neonates born in developing world are of Low Birth Weight having a weight of less than 2500 gm. Also it defines very low birth weight infants (irrespective of gestational age) as neonates born less than 1500 gm and extremely low birth weight<sup>2</sup> as less than 1000gm or less. Of these babies, approximately one third dies before stabilization or in the first twelve hours.

**Keywords:** Low birth weight baby; Neonatal Morbidity; Neonatal Mortality; IUGR Babies; Staff Nurse; Post-test design.

## INTRODUCTION

A neonate with a birth weight of less than 2500gm irrespective of the gestational age is termed as low birth weight baby.<sup>1</sup> They include both preterm and small for dates or IUGR babies. These two groups have different clinical problems and prognosis. In India about 30% neonates are born LBW. Approximately 80% of all neonates deaths and 50% of Infant deaths are related to LBW. These LBW babies are more prone to malnutrition, infections and neurodevelopmental handicapped conditions. They are more vulnerable to develop hypertension, diabetes mellitus, coronary artery disease in adult life.

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## OBJECTIVES OF THE STUDY

- To assess the level of knowledge regarding care of low birth weight babies among staff nurses before structured teaching programme.
- To assess the level of knowledge regarding care of low birth weight babies among staff nurses after structured teaching programme.
- To find out the effectiveness of structured-teaching programme on care of low birth weight babies among staff nurses.
- To find out the association between the post test level of knowledge with the selected demographic variables.

## METHODOLOGY

With evaluative approach and pre experimental, one group pre and post-test design was used. The pilot study<sup>3</sup> was conducted in Mangal nursing home (Gwalior) to find the practicability and feasibility of study.

The main study was conducted in Civil Hospital, Morar (Gwalior). Formal approval was obtained from the concern authority prior to the study. The data collection period was 09.09.2017 to 07.10.2017.

The thirty staff nurses were selected out of fifty five by using convenient sampling technique. Willingness of the staff nurses was obtained with consent form. After the self introduction, the investigators explained the purpose of study and requested for giving frank and honest replies. The investigators collected the demographic variables and monitored the existing level of knowledge of staff nurses regarding care of low birth weight babies using structured questionnaires (pre-test). After that, structured teaching programme was conducted to the staff nurse regarding care of low birth weight babies. After 7 days, the post test was conducted by distributing same questionnaires to same samples. The data was analysed by using statistical method and the result was interpreted.

## RESULTS

In the age of the staff nurses, 05(16.67%) were in 21-30 years, 10(33.33%) in 31 - 40 years, 10(33.33%) in 41-50 years and remaining 5(16.67%) in above 50 years.

Out of thirty staff nurses, 11(36.67%) were male and 19(63.33%) were female.

With regards to professional qualification in nursing, most of the staff nurses were B.Sc. and G.N.M respectively 14 (46.67%) and 11 (36.66%). Five (16.67%) staff nurses were completed P.B.Sc.

The monthly income of 2(6.66%) staff nurses were less than Rs. 10000, 05(16.67%) had income of Rs.10000 to Rs. 20000, 05(16.67%) had income of Rs. 20000 to Rs.30000 and 18(60.00%) had income of above Rs. 30000.

Two (6.67%) staff nurses were having 1 to 5 years of experiences, 10(33.33%) were in 6-10 years of experience and 18(60%) were having more than 10 years.

With regards to work experience in NICU, 15 (50.00%) staff nurses were having 1 to 5 years, 03 (10.00%) were having less than 1 year experience, 5 (16.67%) were having 6 to 10 year experience and 7(23.33%) were having more than 10 year experience.

Five staff nurses were having previous exposure to continuing education programme regarding care of low birth weight babies and remaining 25 were not having any exposure.

Pre test result revealed that, 25 (83.33%) staff nurses had inadequate knowledge, 05 (16.67%) had moderately adequate knowledge and no one had adequate knowledge.

Post test result revealed that, out of 30 staff nurses, 10(33.33%) had moderately adequate knowledge, 20(66.66%) had adequate knowledge and no one had inadequate knowledge.

With regards to general aspects of low birth weight babies, mean difference and standard error of the mean were 3.86 and 0.31 respectively with SD of 1.71 and calculated t value was 12.33. It was significant at 0.05 levels.

The level of knowledge about basic care at neonatal intensive care unit, transport and discharge & follow up care of LBW babies was significant at 0.05 level. Mean difference was 3.13 with SD of 1.87. Standard error of the mean was 0.34 with calculated t value 9.17.

Considering the maintenance of breathing and stable body temperature of LBW babies, mean difference and standard error of the mean were 3.93 and 0.32 respectively with SD of 1.76 and calculated t value was 12.23. It was significant at 0.05 levels.

The level of knowledge about maintenance of nutrition & hydration and prevention of infection

of LBW babies was significant at 0.05 level. Mean difference was 4.43 with SD of 1.90. Standard error of the mean was 0.34 with calculated t value 12.73.

While comparing the total level of knowledge between pre-test and post-test, the difference mean value was 15.36 with a standard deviation of 4.91 and calculated t value was 17.11. Standard error of the mean was 0.89.

It was statistically significant at  $P < 0.05$  level. This shows that there was significant increase in the level of knowledge of staff nurses regarding care of low birth weight babies after STP.

There was a significant association between the level of knowledge with nurse's age,  $\chi^2$  value was 13.35. It was significant at  $P < 0.05$  level.

With regard to the professional qualification,  $\chi^2$  value was 9.94. It was significant at  $P < 0.05$  level.

And there was no significant association between the level of knowledge with gender, monthly income, experience, work experience in NICU and previous exposure to continuing education programme regarding care of LBW babies.

## DISCUSSION

The birth of the newborn is one of the inspiring and emotional events occur in every one life time, the new born affect the life of the parents and the family members. But the new born period is the most crucial period in which undergoes transitional process and got accustomed with the external environment.

The birth of a low birth weight infant can bring considerable emotional and economic costs to families and have implications for public-sector services, such as health insurance, educational and other social support systems. The greatest risk of mortality and morbidity is for those infants born at the earliest gestational ages.

The baby's extensive period of hospitalization in the Neonatal Intensive Care Unit (NICU) impairs the establishment of maternal bonding and attachment. This separation favours mothers' feelings of insecurity toward taking care of her child. In the postpartum period, mothers are usually insecure and feel guilty for not having had the organic capacity of generating a healthy child. This problem can be reduced only by nursing care, because prompt care by nurse increases the adaptability of LBW to environment and reduce the mortality and morbidity rate among LBW babies.

The present study was conducted to evaluate the effectiveness of structured teaching programme on knowledge regarding care of low birth weight babies among staff nurses in selected hospital, Gwalior.

This chapter discusses the findings of this study.

## Nursing Implications

### 1. Implications For Nursing Practice

- The senior staff nurses should identify level of knowledge and skill regarding care of LBW baby among junior staff nurses and start to teach about care low birth weight baby.
- The structured teaching can be utilized to create awareness among the nurses who doing work in neonatal intensive care units.
- Staff nurses are the key persons who spend maximum time with baby in NICU and so they can provide quality care to low birth weight baby.
- Staff nurses should take the responsibility to teach mothers admitted in wards regarding breast feeding, warmth, personal hygiene, infection control and the general care vaccination which enables mothers to acquire insight into the care of LBW baby.

### 2. Implications For Nursing Education

- The curriculum of basic nursing courses should be elaborated regarding care of LBW baby.
- Continuing nursing education should be planned for the nurses to update their knowledge and practice regarding care of LBW baby.
- To impart knowledge, various new techniques on care of LBW baby should be teach to the student nurses.
- This structured teaching programme can be utilized by the students to develop skills in creating the awareness among the nurses in selected hospitals.
- In-service education can be planned for nurses & other health care professionals at various levels to enable them to improve their knowledge in the care of LBW baby.

### 3. Implications For Nursing Research

- Research will help to evaluate the existing and the improvement of staff nurse's knowledge on care of LBW babies. There is a need for extended and intensive nursing research.
- This study will motivate other investigators to conduct further studies regarding effectiveness of structured teaching programme on care of LBW babies in various setting.
- The study brings about the fact that, more studies need to be done for nurses with updated teaching strategies to educate the staff nurses on care of LBW babies.
- The findings of the study shows that the majority of the staff nurses in NICU had moderately adequate knowledge regarding the care of LBW baby. The study will motivate new researchers to conduct the same study with the different variables on a large scale.

### 4. Implications for Nursing Administration

- The responsibility of nursing administrator is to increase the knowledge of staff nurse and nursing students regarding care of low birth weight baby.
- Administrator should organize in-service education programmes, refresher courses and workshops for staff nurses on care of low birth weight baby and encourage them to participate in these activities.
- The nursing administrator should conduct demonstration class regarding technique on care of LBW babies.
- The nursing administrator should support the nursing staff for following new technique in care of LBW babies.
- Nurse administrator may use the study findings to improve the quality of care LBW baby in the community. The concept of the extended role of nurse offers many opportunities for a nurse administrator to improve the quality of life of the public and health care professionals.
- The nurse administrator in the higher level of the authority must hold discussions and meetings on the

prevailing health status of the LBW baby. Based on that, the knowledge of the staff nurses can be accessed and related programme can be planned and implemented.

### Recommendations

1. A same kind of study can be conducted for a larger group.
2. A comparative study can be carried out to check the knowledge level of nurses regarding care of LBW babies.
3. Further studies should be conducted about the attitude and practice regarding care of LBW babies among staff nurses.
4. A same kind of study can be conducted to antenatal and postnatal mothers to improve their knowledge level regarding care of LBW babies.
5. An experimental study can be conducted with control group.
6. A longitudinal study can be done using post test after one month, six month and one year to see the retention of knowledge.

### Delimitations of the Study

- The sample size of the study was delimited to only 30.
- The study was delimited to staff nurses who were working in Neonatal Intensive Care Unit (NICU), Civil Hospital, Morar (Gwalior).
- The data collection period was delimited to four weeks.

## **CONCLUSION**

Neonatal period is the single most hazardous period in the life. Never again life is the individual confronted with more dramatic challenges than during the transition from dependent intrauterine to existence to independent post natal life.

Low birth weight is one of the most serious challenges in maternal and child health in both developed and developing countries. The lower birth weight; the lower survival chance. Main attention has been given in recent years to ways and means of preventing LBW through good prenatal care and intervention programs by our Indian government. But still rate of LBW baby is

higher in our country. So now we are in position to take care of LBW baby in excellent manner.

The staff nurses have great role in reducing neonatal morbidity and mortality through the care of low birth weight baby because in the initial days they are the prime care givers to the newborn baby. So nurses should have a proper knowledge about the care of LBW babies.

A recent development in neonatal technology demands the nurses to have up to date knowledge regarding the care of the low birth-weight neonates. So as to identify the problems as early as possible and to provide need based care to promote optimum health in low birth-weight neonates.

The aim of the study was to evaluate the effectiveness of structured teaching programme on knowledge regarding care of low birth weight babies among staff nurses in selected hospital, Gwalior.

With evaluative approach and pre experimental, one group pre and post test design was used. The pilot study was conducted in Mangal nursing home (Gwalior) to find the practicability and feasibility of study.

The main study was conducted in Civil Hospital, Morar (Gwalior). Formal approval was obtained from the concern authority prior to the study. The data collection period was 10.09.2012 to 06.10.2012.

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## REFERENCES

1. Dutta Parul, "Low Birth Weight Babies" Text Book of Pediatric Nursing, 4th Edition, Published by Jaypee Brothers, Published at New Delhi, PP 98.
2. Sharma Rimple "Extremely - Low - Birth weight Infant" Essentials of Pediatric Nursing 1St Edition, Published by Jaypee Brothers, Published at New Delhi, PP 180.
3. Pareek Bharat "Pilot Study" A Textbook of Nursing Research & Statistics, 5th Edition, Published by Pee VeeS. Vikas and Company, Published at Jalandhar City Punjab, PP 188 - 190.
4. Yadav Manoj, "Very Low Birth Weight Babies " A Textbook of Child Health Nursing 2nd Edition, Published by Pee VeeS. Vikas and Company, Published at Jalandhar City Punjab, PP 313.
5. Gupta Piyush "Preterm Infant" Essential Pediatric Nursing 4th Edition, Published by CBS Publishers and Distributors Pvt. Ltd. PP 115-116.