

**EFFECTIVENESS OF INFORMATION, EDUCATION,  
COMMUNICATION PACKAGE ON KNOWLEDGE  
AND EXPRESSED PRACTICE REGARDING  
THE CARE OF LOW BIRTH WEIGHT BABIES  
AMONG MOTHERS**

By

**P. JEYANTHI**



**A DISSERTATION SUBMITTED TO THE TAMIL NADU  
Dr. M.G.R. MEDICAL UNIVERSITY, CHENNAI IN PARTIAL  
FULFILMENT OF THE REQUIREMENT FOR THE  
DEGREE OF MASTER OF SCIENCE IN NURSING**

April 2012

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**CERTIFICATE**

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## **TO WHOMSOEVER IT MAY CONCERN**

This is to certify that Ethical committee of Dr. G. Sakunthala College of Nursing has discussed with its members the topic “A pre-experimental study to evaluate the effectiveness of information, education and communication package on knowledge and expressed practice regarding the care of low birth weight babies among mothers” opted by **Mrs. P. JEYANTHI** and its implication on study subjects for her thesis for M.Sc. Nursing programme and the committee passed clearance for the same topic for her to pursue.

**Prof. Mrs. SANTHAM SWEET ROSE, M.Sc(N), Ph.D**

**Ethical Committee**

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## ABSTRACT

“A Pre-experimental study to evaluate the effectiveness of Information Education and Communication Package regarding care of low birth weight babies in terms of knowledge and expressed practice among mothers in Child Jesus Hospital, Trichy, 2011”.

### Objectives

1. To assess the level of knowledge on care of low birth weight babies among mothers.
2. To assess the expressed practice on care of low birth weight babies among mothers.
3. To find out the effectiveness of information, education and communication package on care of low birth weight babies among mothers.
4. To find out the relationship between knowledge and expressed practices on care of low birth weight babies among mothers.
5. To find out the association between demographic variables and knowledge on care of low birth weight babies among mothers.
6. To find out the association between demographic variables and expressed practice on care of low birth weight babies among mothers.

### Conceptual framework

Rosenstocks and Beckers health belief model.

### Research Design

Pre experimental (One group pretest posttest).

### Population

Mothers of new borns, diagnosed as low birth weight.

### Sampling Technique

Non probability convenience sampling technique.

### Sampling size

30 samples

### Setting

Child Jesus Hospital, Trichy.

### Tool

Knowledge questionnaire

Expressed practice questionnaire

### Data collection

The period of the data collection was started from 28.06.2011-12.08.2011. Before starting the study the investigator obtained formal permission from the administrator of Child Jesus Hospital to conduct the study.

### Data analysis

1. Percentage, mean, chi-square & standard deviation would be used to know the association between demographic variables and the post test scores.
2. Correlation would be used to determine the relationship between knowledge and expressed practice.
3. Paired T-test would be used to compare the pre test & post test score.

### Major Findings

1. The mean pretest level of knowledge is higher than the mean post test level of knowledge.
2. The mean pretest level of expressed practice higher than the post test level of expressed practice.
3. There is significant improvement in the level of knowledge and expressed practice after administering the IEC package which shows the IEC given was effective.
4. There was a positive correlation between the post test knowledge and post test expressed practice of mothers of low birth weight .

5. Significant association was found between the post test level of knowledge and selected demographic variables such as mothers education, ( $p < 0.01$ ), Number of gravida ( $p < 0.01$ ).
6. Significant association was found between the post test level of expressed practice and selected demographic variables such as Number of gravida ( $p < 0.01$ ), fathers occupation ( $p < 0.01$ ).

### Conclusion

1. Care of low birth weight babies is safer and more effective intervention for low birth weight babies.
2. Improves the physiological responses.
3. Mothers is having positive attitude.

## CHAPTER 1

### INTRODUCTION

“CHILDREN’S HEALTH IS TOMORROWS WEALTH” is one of the WHO’s slogans of recent years.

Low birth weight has been defined by the world health organization as weight at birth less than 2500gm. LBW is associated with multiple problems such as foetal and neonatal mortality or morbidity, compromised growth and cognitive development, Increased risk of cardiovascular and metabolic disorders in adult life has also been reported (WHO).

Singh (2004) stated that low birth weight is a major determinant of malnutrition during infancy. These delegate babies are susceptible to infections and prone to physical and mental handicaps during their life. So they need specialized care to overcome the obstacles and it is the responsibility of the mothers, family and community, to help these newborn to adjust in their life. Causes for low birth weight babies are maternal malnutrition, placental dysfunction, multiple pregnancies, intrauterine infections, influence of teratogens like drugs, radiation, systemic diseases of the mother, genetic and chromosomal disorders and pregnancy induced hypertension. Low birth weight babies also have some special problems like respiratory distress, feeding difficulties, aspiration, hypoglycaemia, hypothermia, infections, developmental retardation and high mortality and morbidity.

Singh (2004) insisted that low birth weight babies need specialized care such as temperature control, maintenance of body temperature, monitoring the temperature, skin care and baby bath, care of the eyes, dressings of the baby, in utero milieu, thermal comfort, feeding and monitoring adequate feeding, prevention of infection and administering the immunization at a correct time.

Kangaroo mother care is an essential care for the low birth weight babies in maintaining the normal thermoregulation. It is a technique practiced on new born usually on low birth weight babies, where the infant is held through skin to skin contact with an adult.

According to Mckinney (2000) kangaroo mother care seeks to provide restored closeness of the newborn with mother or father by placing the infant in direct skin-to-skin contact with one of them. This ensures physiological and psychological warmth and bonding. This kangaroo position provides ready access to nourishment. It arguably offers most benefits for low birth weight babies, who experience more normalized temperature, heart rate, and respiratory rate and increased weight gain, fewer nosocomial infections and reduced incidence of respiratory tract infections.

Elizabeth (2000) mentioned that the complications of low birth weight babies are respiratory distress syndrome, moderate bleeding in brain, chronic lung disease, necrotizing enterocolitis, general infection and meconium aspiration syndrome. It is important to know about the serious complications of low birth weight babies and its early detection of serious problems. When a new born baby is genuinely sick and refuses to take adequate feeds or manifest any other danger signs it should be considered as a seriously ill. The following danger signs should be closely watched and brought to the notice of the consultant.

The serious problems which should be considered early are vomiting, diarrhoea, poor feeding, undue lethargy or excessive crying, excessive frothiness or drooling, chocking at feeds, respiratory difficulty, apneic attacks, cyanosis, seizures, sudden rise or fall in temperature and evidence of superficial infection for example (conjunctivitis and pustules).

Park (2009) stated that the birth weight of an infant is the most important determinant of its chances of survival, health, growth and development. By international agreements, low birth weight has been defined as a birth weight less than 2.5Kgs (up to and including 2499g), measurement being taken preferably within the first hour of the life, before significant post weight loss has been occurred.

Ghai (2004) stated that newborn period encompasses that first four weeks of extrauterine life. It is an important link in the chain of events from conception to adulthood. The physical and mental wellbeing of an individual depends on the current management of events in the perinatal period. The morbidity and mortality rates in newborn infants are high. In India almost 7 out of 100 babies do not see their first



birthday and nearly 65% of these infant deaths occur in the neonatal period namely, the first 4 weeks of life. Low birth weight is the most important determinant of neonatal deaths occurring among low birth weight infants.

Prasanna (2004) reported that newborn health is the key to child survival especially in India. India took the lead in incorporating essential newborn care into the national programme, way back to 1992, much before neonatal health appeared on the international health agenda. The national population policy (2000) explicitly recognises neonatal care as a priority. In the 10<sup>th</sup> 5year plan (2002-2007) specific resource allocation has been made for neonatal care and the country and state level targets were listed for neonatal mortality rate (NMR).

Oscar Carsiro (2007) stated that while the majority of low-birth-weight survivors are free from such major disabilities as cerebral palsy, mental retardation, and hearing and visual deficits, recent studies point out that cognitive and behavioural sequelae becomes apparent in later childhood and in the early school years and that lead to poor academic performance. In addition to the challenges posed by adverse biologic factors, low birth weight infants frequently have to contend with adverse environmental risk factors, such as young maternal age and low maternal educational level and socioeconomic status. Hence there is a need to develop and evaluate preventive strategies to ameliorate the sequelae of prematurity.

Low birth weight is one of the most serious challenge to maternal and child health in both developed and developing countries. It is the single most important factor that determines the chances of child survival. Nearly 50% of neonatal deaths occur among LBW babies. The survivors among them are at a high risk of developing malnutrition, recurrent infections and neuro-developmental handicaps.

#### **SIGNIFICANCE AND NEED FOR THE STUDY**

The basic needs of a low birth weight infants include love, touch, warmth, safety and security. These needs of infants must be met when they are transferred to their mother's side.

The first month of life is the most vulnerable time in childhood. Over 60% of all deaths in infant under one year occur in the first month and that too during the first week of life.

World Health Organisation (WHO) (2008) estimates that globally about 25 million low birth weight babies are born each year, consisting of 17% live births. Among these 17% nearly 95% of them are in developing countries. In India almost 7 out of 100 babies do not see their first birth day, nearly 65% of the infant death occurs in the neonatal period.

United nations international children emergency fund (UNICEF) and World health organisation (WHO) (2004) stated that weight at birth is not only a good indicator of mothers health and nutritional status but also the newborns chances for survival, growth, long term health and psychological development. Low birth weight (<2500gms) carries a range of grave health risks for children. Babies who were under nourished in the womb face a greatly increased risk of dying during their early months and years.

Goldenberg (2009) reported that low birth weight is a major determinant of perinatal illness, disability and death. It accounts for the vast majority of perinatal mortality and more than 50% of long term neurologic morbidity such as cerebral palsy. Babies weighing less than 2.500kg are more likely to suffer from a variety of health and developmental problems with respiratory, gastro-intestinal, hearing, sight, immunologic, cognitive, behavioural, social and emotional health and growth. These issues come with considerable emotional and economic cost, to their families and have a considerable economic impact on public services.

Birth weight is the most important determinant of perinatal, neonatal and postnatal outcomes. Poor growth during the intrauterine period increases the risk of perinatal infant mortality and morbidity. In addition, the intrauterine environment affects the health of an individual not only during foetal life but also through out the postnatal stage of life. Compositional changes are noted in the developing brain exposed to an adverse intrauterine environment and foetal malnutrition. Adverse intrauterine environment results in either low birth weight or preterm birth. Low birth

weight is a multi factorial problem that includes a wide spectrum of health related problems from its origin to the consequences in later life. It carries a 40 times greater risk of neonatal death. (Behrman & Butter)

Hockenberry and Wilson (2007) stated that the study of low birth weight is also important since birth weight constitutes a good indicator of the current health status of the child and a good predictor of health problems in later parts of the child's life, which further more is easily available and reliably measured (more reliable than gestational age). This is important, since more and more low (<2,500g), very low (<1,500g) and extremely low birth weight (<1,000g) children survive, many of those who do survive – especially the very low and extremely low birth weight children – experience health problems from birth to later part of life.

Reer and Freer (2000) stated that low birth weight is considered one of the most important indicator of a newborn's chances of survival, and low birth weight is a major risk factor for perinatal and infant mortality. Low birth weight babies are more likely to have health and developmental problems including learning difficulties, hearing and visual impairments, chronic respiratory problems such as asthma and chronic diseases in later life.

Low birth weight babies have a greater risk of long-term poor health and mortality and may require a longer period of hospitalisation after birth. They are also more likely to develop significant disabilities (Leeson et al, 2001, Mick et al, 2002). Low birth weight is associated with an increased risk of death in the first year of life and long-term disability and diseases (Barker, 1994). Restricted foetal growth resulting in low birth weight is associated with poor growth in childhood and a higher incidence of some adult diseases such as Type 2 diabetes, hypertension and cardiovascular disease (UNICEF and WHO, 2004). Very low birth weight has also been associated with poor school achievement which may persist into early adulthood (Hack et al, 2002).

So considering low birth weight as a preventable one, on the basis of the proverb "prevention is better than cure", the investigator felt that, the mothers need knowledge regarding the care of low birth weight baby on various aspects like causes,

special care, complications, and signs and symptoms of serious problems for low birth weight and make the mothers to apply in their practice, This knowledge can be acquired by an IEC package. Hence the investigator selected this study in order to educate the mothers of LBW babies regarding the care of LBW.

#### PROBLEM STATEMENT

A pre-experimental study to determine the effectiveness of information, education, communication package on knowledge and expressed practice regarding the care of low birth weight babies among mothers at Child Jesus Hospital, Trichy, 2011

#### OBJECTIVES

1. To assess the level of knowledge on care of low birth weight babies among mothers.
2. To assess the expressed practice on care of low birth weight babies among mothers.
3. To find out the effectiveness of information, education and communication package on care of low birth weight babies among mothers.
4. To find out the relationship between knowledge and expressed practice on care of low birth weight babies among mothers.
5. To find out the association between demographic variables and post test knowledge on care of low birth weight babies among mothers.
6. To find out the association between demographic variables and post test expressed practice on care of low birth weight babies among mothers.

#### RESEARCH HYPOTHESES

At  $p < 0.05$  level

- H1: There would be significant difference in the level of knowledge regarding care of low birth weight babies after the administration of information, education and communication package.
- H2: There would be significant difference in expressed practice regarding care of low birth weight babies after the administration of information, education and communication package.

- H3: There would be a significant relationship between the knowledge and expressed practice on care of low birth weight babies among mothers.
- H4: There would be a significant association between the demographic variables and knowledge on care of low birth weight babies among mothers.
- H5: There would be a significant association between demographic variables and expressed practice on care of low birth weight babies among mother.

### OPERATIONAL DEFINITION

#### Effectiveness

Effectiveness is the result produced by the agent or action.

In this study it refers to the extent to which the information, education, communication package achieved, the desired effect in improving the knowledge among mothers on care of low birth weight babies as measured by knowledge questionnaire.

#### Information, Education and Communication

IEC for health is used as a general term for communication activities in health promotion and various aspects coming under IEC are health behaviour, health education, planning for health education, health education with individuals, groups and communities, communicating health messages and media for communicating health messages.

In this study, it refers to a technique which helps to provide teaching regarding, care of low birth weight babies to the mothers in various aspects such as causes of low birth weight, thermoregulation ,immunization, kangaroo mother care, early detection of serious problems, prevention of infection and complications of low birth weight babies to the mothers who had the low birth weight babies, by power point presentation, immunization schedule by hand outs, and breast feeding techniques through demonstration.

#### Knowledge

Information and skills acquired through experience or education.

It refers to understanding about the care of low birth weight babies among mothers in the following aspects , causes of low birth weight , thermoregulation, immunization, Kangaroo mother care, signs and symptoms of serious problems, prevention of infection and complication of low birth weight as measured by knowledge questionnaire

#### Expressed Practice

The actual application or use of a plan or method are expressed as opposed to the theories related to illness.

In this study it refers to the expression of the mothers on care of low birth weight babies on the following aspects of thermoregulation, immunization, Kangaroo Mother Care and prevention of infection as measured by expressed practice questionnaire.

#### Mothers

A woman in relation to a child or children to whom she has given birth.

In this study it refers to the mothers having low birth weight babies.

#### Low Birth Weight Babies

An infant whose birth weight is less than 2500gm.

In this study it refers to those newborn whose birth weight was between 1500-2500gm at the gestational age of 37 weeks completed

#### ASSUMPTION

1. Mothers have inadequate knowledge regarding the care of LBW babies.
2. Education will enhance the knowledge of mothers regarding the care of LBW babies.

#### DELEMITATIONS

The study was delimited to

1. mothers who were having healthy low birth weight babies (1500-2500gms).
2. mothers who were admitted their babies in Child Jesus Hospital at Trichy.
3. 30 samples.
4. 6 weeks.

## CHAPTER II

### REVIEW OF LITERATURE

A literature review involves the systematic identification, location, and summary of written materials that contain information regarding the problem of the study.

A review of related research and non-research literature was done in order to broaden the understanding and develop an insight into the selected problem in the study for the purpose of logical, sequence the chapter is divided in to

Literature related to the health problems of low birth weight babies.

Literature related to the management of low birth weight babies.

#### LITERATURES RELATED TO THE HEALTH PROBLEMS OF LOW BIRTH WEIGHT BABIES

Miler (2011) conducted a study on hypothermia in very low birth weight babies, to study the epidemiology of neonatal hypothermia in infants using WHO temperature criteria. Population based cohort of 8782 VLBW infants born in California neonatal intensive care units in 2006 and 2007. Associations between admission of hypothermia and maternal and neonatal characteristics and outcomes were determined using logistic regression. Hypothermia by WHO criteria is prevalent in VLBW Infants and is associated with IVH and mortality. Use of WHO criteria could guide the need for quality improvement projects targeted toward to most vulnerable infants.

Munesh, Sharma, Kumar, Huria and Gupta (2009) conducted a study on maternal risk factors of low birth weight in Chandigarh. The overall proportion of low birth weight was 23%. Proportion of low birth weight was comparatively higher among babies born to mothers who were below 20 yrs of age (50%), poorly educated (32.6%), belonging to family with income less than Rs.2000 per capita (28.9%), poorly nourished with prepregnancy weight less than 45kg (50%), as compared to others. Primi mothers were comparatively at lower risk (18.4%) of delivering LBW babies as compared to multigravida mothers. Low literacy level, low per capita

income, birth order two and above and maternal age above 30 yrs were the significant risk factors of LBW.

Hill (2009) conducted a study on catch up growth for low birth weight infant. A descriptive design was used to collect data from 60 hospital records. Retrospective chart review describes the growth of low birth weight infants after the discharge from neonatal intensive care unit. The low birth weight infants showed gains relative to the full-term infant but lagged behind on each growth parameter at each assessment.

Cristabal (2008) conducted a study on hearing loss in children with very low birth weight babies. An association between birth weight <1500g and hearing loss has been long recognised as universal hearing screening programs have become widely implemented and the survival rate of very low birth weight babies in modern ICU has increased. Children with very low birth weight are at increased of experiencing progressive or delayed onset hearing loss and thus should continue to have serial hearing evaluations after discharge from NICU.

Uthman (2008) conducted a study on effect of low birth weight on infant mortality in nigeria, to examine the relationship between high risk infant of born with low birth weight. It was examined using multivariate survival regression procedure. Low birth weight is strongly negatively associated with infant survival in nigeria independent of other risk factors. Children can be ensured a healthy start in life if women start pregnancy healthy and well nourished and go through pregnancy and childbirth safety.

Holly (2007) conducted a study of neonatal infections in extremely low birth weight infants significantly increase the likelihood of problems related to neurodevelopment and growth in early childhood. Sepsis (199), Sepsis and necrotising enterocolitis (279) or meningitis with or without sepsis (195) study revealed 62% of infant had weight, length or head circumference less than the 10<sup>th</sup> percentile.

Hockenberry and Wilson (2007) stated that the high risk neonate can be defined as a newborn, regardless of gestational age or birthweight, who has a greater



than average chance of morbidity or mortality because of conditions or circumstances superimposed on the normal course of events associated with birth and the adjustment to extrauterine existence.

Farma (2003) examined the dose effect of maternal milk on neonatal morbidity of very low birth (<1.5kg) infants. A daily threshold amount of atleast 50ml/kg of maternal milk through week 4 of life is needed to increase the rate of sepsis in very low birth weight infants, but maternal milk does not affect other neonatal morbidities.

Gurav, Karthikeyan, Jape, (2003) conducted a pilot study on low birth weight babies. Low birth weight babies compromised 35.68% and this percentage was higher for female newborns. The sex wise difference in low birth weight was statistically significant. The percentage of low birth weight was found to be positively correlated with multi gravidity and with increased maternal age.

#### LITERATURE RELATED TO THE MANAGEMENT OF LOW BIRTH WEIGHT

Yashoda, Pai, Sangeeta (2011) conducted a study to determine the feasibility and acceptability of Kangaroo mother care in a tertiary carer hospital in India. A randomised controlled trial was performed over 1 year period in which 89 neonates were randomised in to two groups, Kangaroo mother care and conventional method of care. There was significant reduction in kangaroo mother care vs conventional method care group of hypothermia, higher oxygen saturation and decrease in respiratory rates.

Thukral, Chawla, Agarwal, Deorari, Paul (2009) conducted a observational study on kangaroo mother care an alternative to conventional care, to prove that kangaroo mother care is an gentle and effective method in breast feeding encouragement and avoids agitation which was routinely experienced by low birth weight babies. It was found that low birth weight babies exposed to skin to skin contact showed a better mental development and better results in motor test.

Subedi, Aryal, Gurubacharya (2008) conducted a study on kangaroo mother care for low birth weight babies: a prospective observational study, it was done to see the effect of KMC especially on weight gain on low birth weight babies weighing

2000gms. It was observed that babies had good weight gain of average 30gms/day and short duration of hospital stay of average 9 days.

Acolet et al (2007) conducted a cluster randomised controlled trail on 'An active dissemination of information' on standard care for low birth weight babies in England, to assess the relative effectiveness of active dissemination strategies on change in practice. It was found that the information lead to a change in practice.

Chevalier, Sullivan (2007) conducted a study on 'Mothers education and Birth weight'. Using british data maternal education is found to be positively correlated with birth weight. They founded modest but heterogenous positive effects of maternal education on birth weight with an increase from the base line weight ranging from 2% to 6%.

Darmstadt (2007) conducted a cluster randomised controlled trail on impact of educational package on care of low birth weight babies among family and community in Uttar Pradesh. It was done to evaluate the effectiveness of educational interventions. It was found that educational package empowers them to change in their, practice with increased confidence.

Dasgupta, Dasgupta, Sinha, Chaudhur (2008) conducted a epidemiological study of low birth weight newborns in west bengal, among different variables studied, statistically significant association was found in case of educational level of mothers and also place of delivery of newborns.

Rao et al (2007) conducted a randomised controlled trial, to compare the effect of Kangaroo mother care and conventional method of care on growth in low birth weight babies, (<2000). A significantly higher number of babies in the conventional methods of care group suffered from hypothermia, hypoglycaemia and sepsis. There was no effect on the time of discharge. More kangaroo mother care babies are exclusively breastfed at the end of the study (98% Vs 76%). kangaroo mother care was acceptable to most mothers and families at home.

Bergman (2007) conducted a study on randomised controlled trail of skin-to-skin contact from birth versus conventional incubator for physiological stabilization in

1200-2199gm. Conventional care of low birth weight babies involves extended maternal-infant separation and incubator care. Recent research has shown that separation cause adverse effects. Maternal infant skin-skin contact provide an alternative habitat to the incubation. New born care provided by skin-skin contact on the mothers chest results in better physiological outcomes and stability that the same care provided in closed servo-controlled incubators.

UNICEF (2004) mentioned that there was a significant decline in neonatal mortality rate in low birth weight babies. It shows that good essential care of the new born will prevent many newborn from health hazards.

Singh (2004) stated that most babies with a birth weight more than 1800gm or gestational age more than 34 wks can be managed at home. Strict asepsis should be observed to prevent occurrence of bacterial infections.

Priya (2004) conducted a study on Kangaroo mother care on Low birth Weight babies. The research design adopted for this study was quasi experimental design with the same samples as serving as their own control group. Non probability convenience sampling technique was used to select 30 low birth weight babies and their mothers. A checklist for assessment and recording of physiological and behavioural responses of low birth weight babies was used. The findings were, the mean temperature of low birth weight babies during KMC (98.8 f-99.3 f) was higher than routine care.

Ragavendra (2004) insisted that the ways for management for low birth weight are preventing prematurity and manage preterm labour, care of birth, appropriate place of care, intensive care, protocol, respiratory support, prevent infection, monitoring and early detection of complications and feeding.

Renie (2002) stated that babies kept in the thermoneutral range, body temperature below 36 C or above 37 C, adequate humidity reduction in draughts and covering babies after drying will prevent babies from hypothermia.

Sur et al (2001) conducted a observational study on impact of breastfeeding on weight gain and incidence of diarrhea among low birth weight babies of an urban slum of Calcutta. Low birth weight babies who were on exclusive breast feeding

showed remarkable growth, and experienced fewer episodes of diarrhea as compared to those weaned early.

Parthasarathy (2002) insisted that the low birth weight babies can be managed by keeping the low birth weight babies warm, nutrition and fluids amount and frequency of enteral feeds, technique of feeding, assessment of adequacy of nutrition, nutritional supplements, early detection of sickness and management of complications and vaccination of low birth weight babies.

Elizabeth (2000) stated that stable babies with a birth weight of 1.8kg can be managed at home. Mothers should empowered to breast feed the baby and to maintain warmth and hygiene in the baby, provide appropriate immunization at appropriate time.

Ghai (2000) stated that low birth weight can be treated by thermal protection, fluids and feeds, monitoring and early detection of complications.

## CONCLUSION

The above 28 literature review suggested the importance of care of low birth weight babies and its significance in the management of various health problems related to them.

## CONCEPTUAL FRAMEWORK

Conceptual framework for this study is developed from the existing theory and it helps in defining the concepts of interest and proposing relationship among them. The model gives direction for the planning data collection and interpretation of findings.

(Burns and Groove, 1995)

The present study aims at determining the effectiveness of Information Education and Communication package on knowledge and expressed practice of mothers regarding care of low birth weight babies. The conceptual framework of the present study is developed based on Rosenstock's and Becker's health belief model.

Good health is an common objective to all people-Rosenstock (1974).

### Individual Perception

In this study, the individual perceptions are the deficient knowledge and expressed practice of the mothers in caring their low birth weight baby.

### Perceived Threats

In this study, perceived threat is the deficiency in the mothers knowledge and expressed practice in caring the low birth weight babies, which will hinder the performance in their real life. In turn it will affect the babies growth and development.

### Modifying Factors

Factors that modify a persons perception includes the following:

### Demographic Variables

In this study the demographic variables that have influence over the mothers knowledge and expressed practice in caring for their low birth weight babies include mothers education, mothers occupation, fathers occupation, families income, low birth weight during last pregnancy, disease during pregnancy, number of gravid.

### Structural Variables

In this study the structural variables are the prior knowledge and expressed practice of mothers regarding care of low birth weight babies.

### Cues to Action

Cues to the action can be either internal or external. In this study the internal cues include the feelings of parents or thoughts about the condition of their low birth weight babies. The external cues are the investigators and Information Education and Communication package regarding the care of low birth weight babies.

Mothers of low birth weight babies are trained in giving care for their babies through which they are able to maintain thermoregulation, identify the causes, prevent infection, promote exclusive breast feeding, identify early signs and symptoms of the serious problems of low birth weight and complications.

### Likelihood of Action

The likelihood of a person taking recommended preventive health action depends on the perceived benefits of the action, minus the perceived barriers to the action.

#### The perceived benefits of action

In this study are the improvement of the knowledge and expressed practice in providing care for their low birth weight babies.

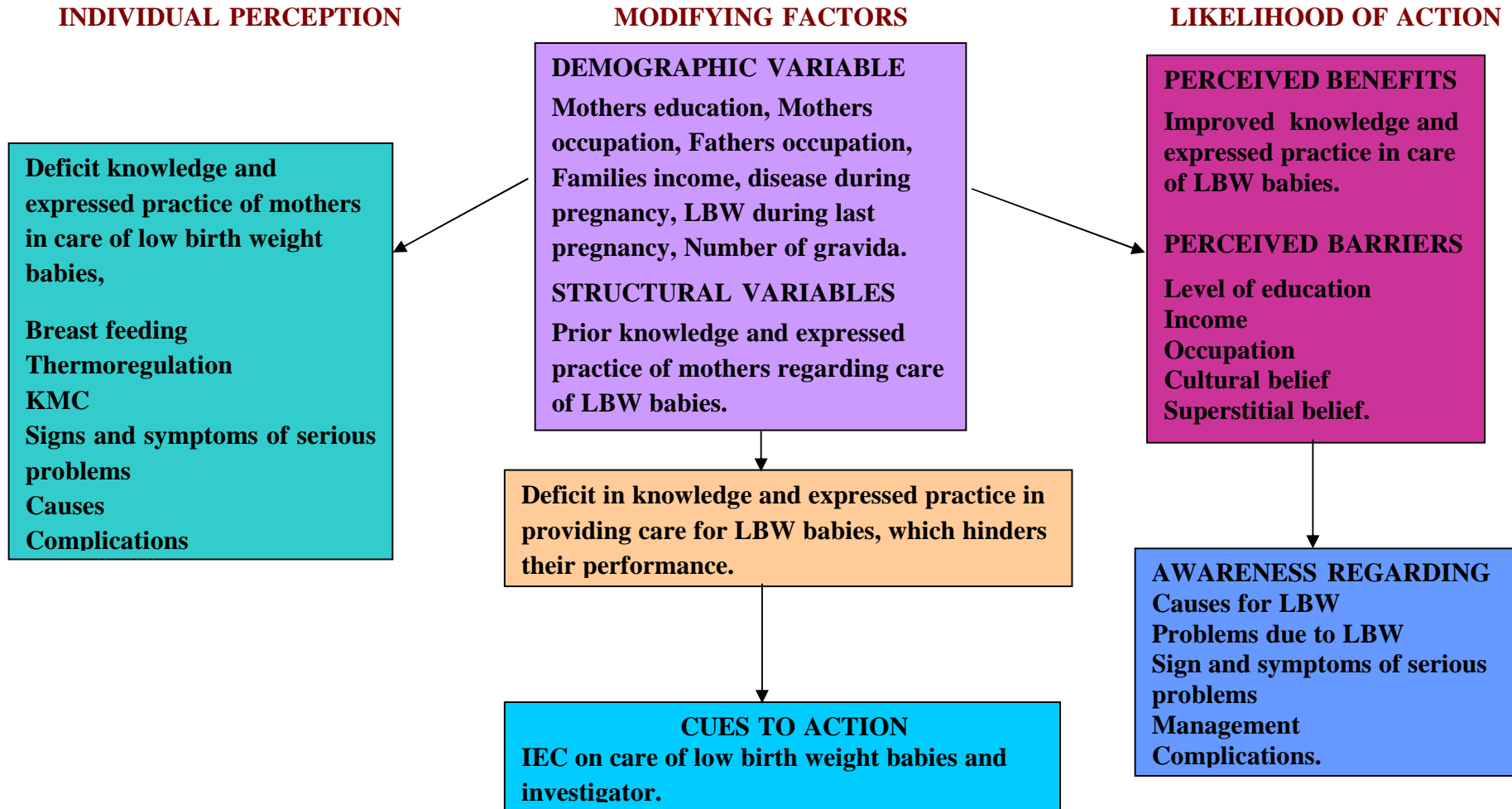
#### The perceived barriers to action

In this study are level of education, income, occupation, cultural beliefs and superstitious belief.

Likelihood of taking recommended preventive health action is the improvement in the knowledge and expressed practice of mother's of low birth weight babies by caring their babies.

The intervention which is given by the researcher is based on the needs of the low birth weight babies.

Rosenstocks and Becker's health belief model, is the best suited for this study which was undertaken to determine the knowledge and expressed practice of mothers regarding care of low birth weight babies, using pre-test and post-test method.



**FIGURE 1 CONCEPTUAL FRAMEWORK BASED ON ROSENSTOCKS AND BECKER'S HEALTH BELIEF MODEL**

## CHAPTER III RESEARCH METHODOLOGY

Methodology of research refers to investigations of the ways of obtaining, organizing and analyzing data. Methodology studies address the development, validation and evaluation of research tools or methods.

(Polit and Beck, 2004)

This section discusses the research approach, research design, setting of the study, population, sample size, sample data collection procedure.

### RESEARCH APPROACH

Experimental approach, a subtype of quantitative approach was used in this study to evaluate the effectiveness of IEC among mothers of low birth weight babies.

### RESEARCH DESIGN

Pre-experimental (one group pretest posttest design).

O<sub>1</sub>      X      O<sub>2</sub>

### KEY

O1      : Pretest.

X        : Information, Education and Communication package.

O2      : Post test.

### SETTING OF THE STUDY

The study was conducted in Child Jesus Hospital at trichy, which was a 250 bedded hospital providing multispeciality services with highly qualified health care professionals. The hospital had one separate NICU and it is equipped with 10 phototherapy unit, 20 warmers and 5 ventilators. The NICU is situated opposite to postnatal ward. Post natal ward consisted of 50 beds separated as three general rooms. There was a separate place for mothers to breast feed their babies. There were 10 eminent paediatricians admitting the low birth weight babies in this hospital. The reason for selecting this hospital was the availability of samples, facility for conducting study and expectation and cooperation from the medical and nursing staff and from mothers for the collection of data.



## POPULATION

The population of the study consisted of the mothers of newborns who were diagnosed as low birth weight.

## SAMPLE

Mothers of newborns who were diagnosed as low birth weight, and admitted in Child Jesus Hospital at Trichy.

## SAMPLE SIZE

The sample size was 30.

## SAMPLING TECHNIQUE

Non probability convenience sampling technique was used for selection of samples.

## SELECTION CRITERIA OF SAMPLES

### Inclusion Criteria

1. Mothers who had healthy low birth weight babies (1500-2500gms).
2. Mothers who were willing to participate.
3. Mothers who communicated freely in tamil.

### Exclusion Criteria

1. Mothers of babies who belonged to very low birth weight and extremely low birth weight category.
2. Mothers who delivered the normal newborn.

## DESCRIPTION OF THE TOOLS

The researcher had developed an self administered questionnaire to measure the knowledge and expressed practice regarding the care of low birth weight babies. The instrument contained the following sections.

#### PART A: (Demographic variables)

Demographic variables which included mothers education, mothers occupation, fathers occupation, monthly income of the family, presence of illness during pregnancy, previous history of LBW babies and number of gravida.

#### PART B: (Questionnaire on knowledge)

It consisted of 22 questions to assess the knowledge regarding the care of low birth weight babies.

#### PART C: (Questionnaire on expressed practices)

It consisted of 10 questions to assess the mothers knowledge on practice regarding the care of low birth weight babies. Each question has 2 options. “Yes” or “No”.

### INFORMATION, EDUCATION AND COMMUNICATION PACKAGE

IEC package was given for the study subjects. The IEC programme consisted of information regarding care of low birth weight babies on the aspects like causes, thermoregulation, immunization, kangaroo mother care, signs and symptoms of serious problems, prevention of infection and complication of low birth weight babies.

### SCORING PROCEDURE

A Score of “1” mark was given for every correct answer and “0” mark was given for every wrong answer. The score was ranged as follows.

#### Knowledge Scores

Adequate	: 76-100%
Moderately adequate	: 51-75%
Inadequate	: less than 50%

#### Expressed Practice Scores

Favourable practice	: 76-100%
Moderately favourable practice	: 51-75%
Unfavourable practice	: 0-50%

## VALIDITY

The tool was evaluated by 5 experts, who were requested to give their valuable suggestion about the content areas, relevant, clarity and appropriate need of the items.

## RELIABILITY

The reliability of the tool was established by assessing the quality and adequacy of the tool using split half method. The “r” value was 0.845.

## PILOT STUDY

After obtaining formal administrative approval the pilot study was carried out with 5 mothers, admitted in Child Jesus Hospital from 19.06.2011 to 27.06.2011. The pilot study samples were excluded from the main sample for the data collection. The data collected were amenable to statistical analysis and thus the study was found to be feasible.

## DATA COLLECTION PROCEDURE

The period of the data collection was 28.06.2011-12.08.2011. Before starting the study the investigator obtained formal permission from the administrator of Child Jesus Hospital to conduct the study. After obtaining permission the mothers of healthy low birth weight babies were identified. Sample was selected and pre-experimental design was used. The data was collected on all 6 days of the week, the timing of the data collection was from 10.00am-04.00pm according to the availability of the mothers and convenience of the ward routine. 4 to 5 mothers were selected per day depending on their availability. The nature and purpose of the study was explained to the selected mothers. Informed consent was obtained. Pre test was conducted, and then IEC package was administered to the sample. After 15 days post test was conducted.

## PLAN FOR DATA ANALYSIS

The collected data would be tabulated to represent the finding of the study. Descriptive statistics like frequency, percentage, mean, and standard deviation would be used to analyse the demographic variables. Inferential statistics like paired ‘t’ test would be used to evaluate the effectiveness of Information, Education and

Communication package on care of Low birth weight babies. Correlation would be used to determine the relationship between knowledge and expressed practice. Chi-square would be used to find out the association between demographic variables and knowledge and expressed practice on care of low birth weight babies among mothers. Using SPSS 13 Version all the statistics would be done at  $p < 0.05$  level.

#### ETHICAL CONSIDERATIONS

The research proposal was approved by the dissertation committee prior to the pilot study. Permission was obtained from the Co-ordinator, the Principal of Dr. G. Sakunthala College of Nursing and the administrator of the Child Jesus Hospital to conduct the study. The oral consent was obtained from each participant of the study before starting the data collection. Assurance was given to the subjects that the anonymity of each individual would be maintained.

## CHAPTER IV

### ANALYSIS AND INTERPRETATION OF DATA

#### INTRODUCTION

The data themselves do not provide answer to research questions. So the data need to be processed and analysed in an orderly coherent fashion. After the analysis, they must be systematically interpreted. Interpretation is the process of making sense of the results and examining their implications.

This chapter deals with the description of the sample, analysis and interpretation of data to assess the knowledge and expressed practice of mothers of low birth weight babies, the effectiveness of information, education and communication package in terms of knowledge and expressed practice regarding care of low birth weight babies among mothers of low birth weight babies on Child Jesus Hospital at Trichy. The obtained data were classified, grouped and analysed statistically based on the objectives of the study.

#### OBJECTIVES

1. To assess the level of knowledge on care of low birth weight babies among mothers.
2. To assess the expressed practice on care of low birth weight babies among mothers.
3. To find out the effectiveness of information, education and communication package on care of low birth weight babies among mothers.
4. To find out the relationship between knowledge and expressed practices on care of low birth weight babies among mothers.
5. To find out the association between demographic variables and post test knowledge on care of low birth weight babies among mothers.
6. To find out the association between demographic variables and post test expressed practice on care of low birth weight babies among mothers.

## THE STUDY FINDINGS WERE REPRESENTED AS FOLLOWS

- SECTION:1 Frequency and percentage distribution of demographic variables.
- SECTION:2 Percentage distribution of knowledge and expressed practice scores of mothers of low birth weight babies before IEC package.
- SECTION:3 Comparison of mean scores between pre-test and post-test.
- SECTION:4 Correlation between knowledge and expressed scores of post-test.
- SECTION:5 Association between selected demographic variables and post-test level of knowledge and post-test level of expressed practice of mothers of low birth weight babies regarding care of low birth weight

## SECTION I

This section deals with demographic variables of the sample.

Table 1

Frequency distribution of sample according to their demographic variables.

n=30

S. No.	Demographic Variable	Frequency	Percentage
1	Mothers education		
a.	Primary school	9	30
b.	Higher secondary	6	20
c.	Graduate	15	50
2	Mothers occupation		
a.	Working	12	40
b.	Home maker	18	60
3	Fathers occupation		
a.	Un employed	2	6.7
b.	Self employed	15	50
c.	Clerical	4	13.3
d.	Professional	9	30
4	Monthly income		
a.	<1000	1	3.3
b.	1001 - 3000	6	20
c.	3001 - 5000	10	33.3
d.	>5001	13	43.3

5	Disease during pregnancy		
a.	Yes	3	10
b.	No	27	90
6	Low birth weight during last pregnancy		
a.	Yes	2	6.7
b.	No	28	93.3
7	Number of gravida		
a.	Primi gravida	14	46.7
b.	Multi gravida	16	53.3

Table 1, describes the frequency distribution of sample according to their demographic variables.

Majority of the mothers 15(50%) were graduate, 6(20%) had higher secondary education and 9(30%) had primary school

Majority of the mothers 18(60%) were home maker and 12(40%) were working.

Majority of fathers 15(50%) were self employed 9(30%) were professional, 4(13.3%) were doing clerical work and 2(6.7%) were unemployed.

Majority of them had a family income of 13(43.3%) >5000, 10(33.3%) had between 3001-5000, 6(20%) had 1000-3000 and 1(3.3%) had <1000.

Majority of the mothers 27(90%) did not had disease during pregnancy and 3(10%) had disease during pregnancy.

Majority of mothers 28(93.3%) did not had low birth weight babies during last pregnancy and 2(6.7%) had low birth weight baby.

Majority of the mothers 16(53.3%) were multigravida and 14(46.7%) were primi mothers.



## SECTION II

This section deals with the knowledge scores and expressed practice of mothers before IEC package.

Table 2

Percentage distribution of the knowledge scores of mothers of low birth weight babies before IEC package.

S. No	Knowledge	Frequency	Percentage
1	Inadequate	11	36.7
2	Moderately adequate	17	56.7
3	Adequate	2	6.7

Table 2 describes the percentage distribution of knowledge scores of mothers of low birth weight babies, the level of the knowledge during pretest was, inadequate among 11(36.7%) subjects, moderately adequate among 17(56.7%) subjects and adequate among 2(6.7%) subjects.

Table 3

Percentage distribution of expressed practice scores of mothers of low birth weight before IEC package.

S. No	Expressed practice	Frequency	Percentage
1	Unfavourable practice	18	60
2	Moderately favourable practice	10	33.3
3	Favourable practice	2	6.7

Table 3 describes the percentage distribution of expressed practice scores of mothers of low birth weight babies before IEC package, the expressed practice during pretest was unfavourable among 18(60.0%) subjects, moderately favourable among 10(33.3%) subjects and favourable among 2(6.7%) subjects.

## SECTION III

This section deals with the comparison of mean scores between pre-test and post-test.

Table 4

Comparison of mean scores between pre-test and post-test.

Component	Pretest Mean	Posttest Mean	Mean Differences	Standard Deviation	Paired 't' test
Knoweldge	56.36	80.61	24.25	3.198	9.133*
Expressed practice	53.00	74.33	21.33	2.047	5.709*

\*  $p < 0.01$ .

Table 4 describes the comparison of mean scores between pretest and posttest, the mean post-test knowledge (80.61) was higher than the pre-test mean (56.36) with the standard deviation (3.198) and the obtained 't' value ( $t=9.133$ ) was significant at  $p < 0.01$ , whereas post-test expressed practice mean (74.33) is greater than pre-test expressed mean (53.00) with the standard deviation (2.047) and obtained 't' value ( $t=5.709$ ) was significant at  $p < 0.01$ . The stated research hypothesis H1 and H2 was accepted.

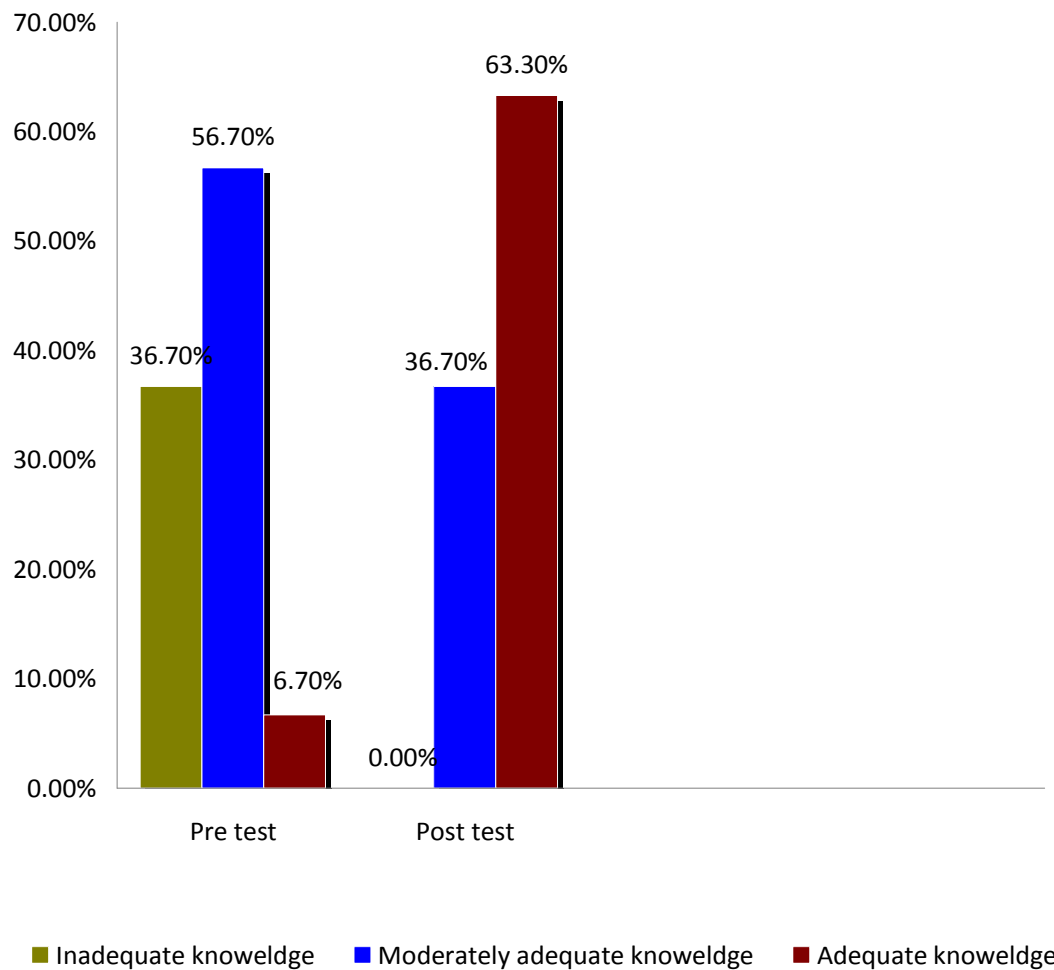


Figure 2

Percentage distribution of knowledge scores of mothers of low birth weight baby before and after information, education and communication package administration.

Figure 2 describes the percentage distribution of knowledge scores of mothers of low birth weight babies before and after information, education and communication package administration. The level of knowledge during pretest was, inadequate among 11(36.7%) subject and moderately adequate among 17(56.7%) subjects and adequate among 2(6.7%) subjects, whereas in post test, inadequate among 0(0%) subjects, moderately adequate among 11(36.7%) and adequate among 19(63.3%) subjects.

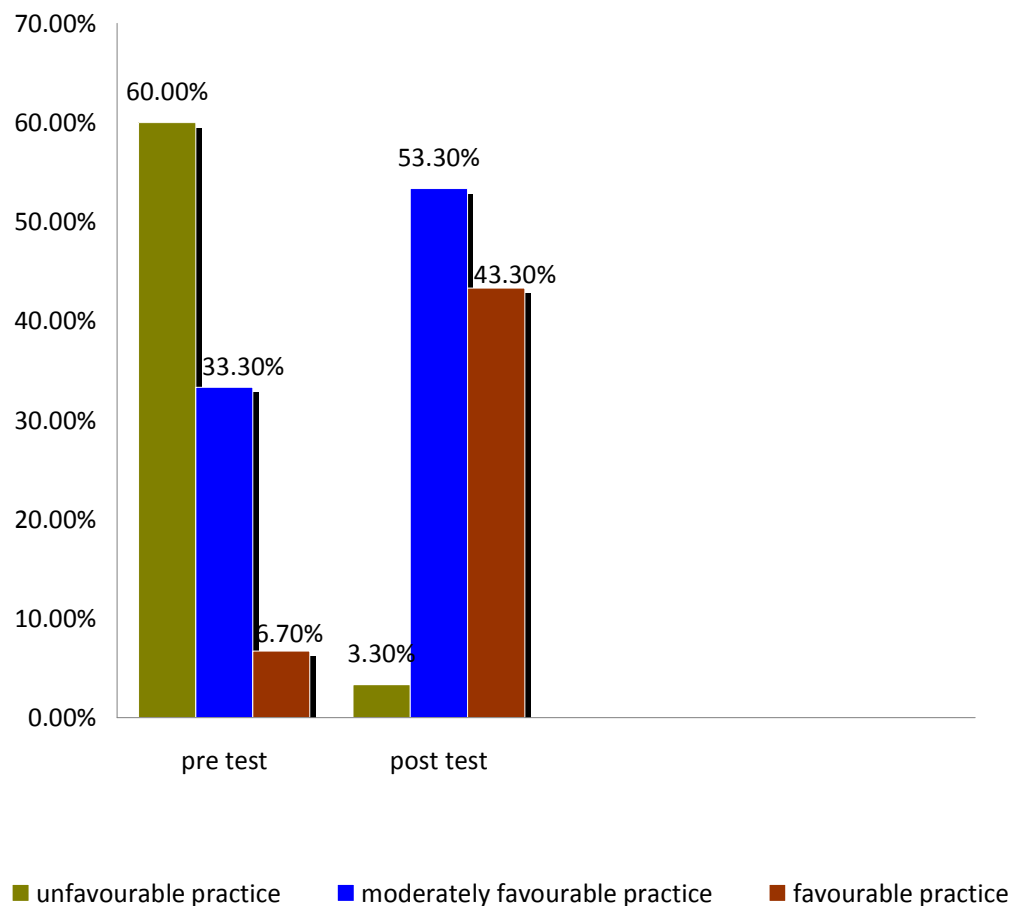


Figure 3

Percentage distribution of expressed practice scores of mothers of low birth weight baby before and after IEC package administration.

Figure 3 describes percentage distribution of expressed practice scores of mothers of low birth weight baby before and after IEC package administration. Expressed practice during pre-test was unfavourable practice among 18(60.0%) subjects, moderately favourable practice among 10(33.3%) subjects, favourable practice among 2(6.70%) mothers whereas during post-test was favourable practice among 13(43.3%) subjects, moderately favourable practice 16(53.3%), and unfavourable practice among 1(3%) subjects.

## SECTION IV

This section deals with correlation between knowledge and expressed practice of post-test.

Table 5

Correlation between knowledge and expressed practice of post-test.

Component	Correlation 'r'
Knowledge	0.821**
Expressed practice	

\*\* p<0.01.

Table 5 describes correlation between knowledge and expressed practice of post-test. The investigator found that there was a significant correlation ( $r=0.821$ ) between the post-test level of knowledge and post-test level of expressed practice, significant at  $p<0.01$ .

## SECTION V

This section deals with the association between selected demographic variables and post-test level of knowledge and post-level of expressed practice of low birth weight babies regarding care of low birth weight babies.

Table 6

Association between selected demographic variables and post-test knowledge.

S. No.	Demographic Variable	Moderately Adequate	Adequate	$\chi^2$
1	Mothers education			
	a. Primary school	9	0	
	b. Higher secondary	1	5	22.392***
	c. Graduate	1	14	
2	Mothers occupation			
	a. Working	3	9	
	b. Home maker	8	10	1.172
3	Fathers occupation			
	a. Un employed	2	0	
	b. Self employed	5	10	
	c. Clerical	2	2	4.641
	d. Professional	2	7	
4	Monthly income			
	a. <1000	0	1	
	b. 1001 - 3000	2	4	
	c. 3001 - 5000	6	4	3.986
	d. >5001	3	10	

5	Disease during pregnancy			
	a. Yes	2	1	1.292
	b. No	9	18	
6	Low birth weight during last pregnancy			
	a. Yes	0	2	1.247
	b. No	11	17	
7	Number of gravida			
	a. Primi gravida	9	5	8.623**
	b. Multi gravida	2	14	

\*\* p < 0.01 \*\*\* p < 0.001

Table 6 describes association between selected demographic variables and post-test knowledge. Significant association was found between the post-test level of knowledge and selected demographic variables such as mothers education ( $\chi^2$  -22.392), number of gravida ( $\chi^2$  -8.623). So the stated research hypothesis H4 was accepted for mothers education and number of gravida. The other demographic variables (mothers occupation, fathers occupation, monthly income, disease during pregnancy, low birth weight during last pregnancy) were independent on the post test knowledge.



Table 7

Association between selected demographic variables and post-test expressed practice.

S. No.	Demographic Variable	Unfavourable Practice	Moderately Favourable Practice	Favourable Practice	$\chi^2$
1	Mothers education				
	a. Primary school	1	7	1	
	b. Higher secondary	0	2	4	7.173
	c. Graduate	0	7	8	
2	Mothers occupation				
	a. Working	0	7	5	
	b. Home maker	1	9	8	0.773
3	Fathers occupation				
	a. Un employed	1	1	0	
	b. Self employed	0	6	9	
	c. Clerical	0	3	1	17.502**
	d. Professional	0	6	3	
4	Monthly income				
	a. <1000	0	0	1	
	b. 1001 - 3000	0	5	1	
	c. 3001 - 5000	1	6	3	7.298
	d. >5001	0	5	8	

5	Disease during pregnancy				
	a. Yes	0	3	0	2.917
	b. No	1	13	13	
6	Low birth weight during last pregnancy				
	a. Yes	0	1	1	0.98
	b. No	1	15	12	
7	Number of gravida				
	a. Primi gravida	1	13	0	20.206***
	b. Multi gravida	0	3	13	

\*\*at p at <0.01 \*\*\* at p <0.001

Table 7 describes the association between selected demographic variables and post-test expressed practice. Significant association was found between the post expressed practice and selected demographic variables such as fathers occupation ( $\chi^2$  -17.502), number of gravida ( $\chi^2$  -20.206). So the stated research hypothesis H5 was accepted for fathers occupation, and number of gravid. The other demographic variables (mothers education, mothers occupation, monthly, monthly income, disease during pregnancy, low birth weight during last pregnancy) were independent on the post test expressed practice.

## CHAPTER V

### DISCUSSION

This chapter deals with the findings of the study. The study was done to evaluate the effectiveness of information, education and communication package on knowledge and expressed practice on care of low birth weight babies among mothers, at post natal ward, Child Jesus Hospital, Trichy.

A pre experimental design was used to conduct the study. Knowledge and expressed practice was assessed by using structured questionnaire. Non probability convenience sampling technique was used. The study sample consisted of 30 mothers of low birth weight babies. Using the above tool, data were collected, and analysed. The study findings revealed the following.

The aim of the study was to evaluate the effectiveness of Information Education and Communication package, on knowledge and expressed practice on care of low birth weight babies among mothers.

Among the demographic variables majority of mothers 15(50%) were graduates, 18(60%) were home makers, 15(50%) of fathers were self employed, 13(43.3%) of family income were >5000, 27(90%) had no disease during pregnancy, 28(93.3%) of mothers did not had low birth weight baby during last pregnancy, 16(53.3%) of mothers were multi gravidas.

The first objective of the study was to assess the level of knowledge on care of low birth weight babies among mothers.

The results of this study showed that 11(36.7%) of the mothers had inadequate knowledge and 17(56.7%) had moderately adequate knowledge regarding the care of low birth weight babies. It was assessed by the investigator by conducting a pretest with the help of knowledge questionnaire. So the investigator planned to provide an IEC package to insist the importance regarding the care of low birth weight babies in various aspects like causes of low birth weight babies, problems of low birth weight babies, thermoregulation, kangaroo mother care, signs and symptoms of serious

problems and immunization schedule by power point presentation, handouts and demonstrated breast feeding technique.

The second objective of this study was to assess the expressed practice on care of low birth weight babies among mothers.

In the present study the expressed practice scores during the pre test was unfavourable 18(60%) among most of the mothers of low birth weight babies because they were unaware regarding special needs of low birth weight babies.

The third objective of the study was to find out the effectiveness of IEC package on the knowledge and expressed practice care of low birth weight babies among mothers.

Based on the preassessment scores, in the present study, after the administration of information, education, communication package, most of the mothers acquired knowledge 19(63.30%), which was assessed by providing post-test knowledge questionnaire. During the period of administering information, education, communication package, mother's were very interested and they asked questions and clarified their doubts. Interaction was very good. It was also observed that they handled their babies in a safe manner after Information, Education and Communication package. The findings were supported by a study done by Chevalier, Sullivan (2007), Darmstadt (2007), and Acolet et al (2007).

The fourth objective was to find out the relationship between knowledge and expressed practice on care of low birth weight babies among mothers.

There was a positive correlation between post knowledge and expressed practice on care of low birth weight babies among mothers. Achieving health literacy implies that health education not only relays information, but also enhances a persons ability to think about healthy practices, seek and use information and motivate people to take action to improve health (Raquiba. A.Jahan, 2006)

Results from this study indicated that the health programme are doing enough to raise health literacy and improve health outcomes. The concept of health literacy, is an outcome of health education, going further than the simple dissemination of

messages and enhancement of peoples ability to think about healthy behaviours, to seek and use information, and motivate people to take action to improve health. This finding was supported by article published by UNICEF(2004)

The fifth objective was to find out the association between demographic variables with knowledge on care of low birth weight babies among mothers.

In this study the association between the demographic variables and mothers knowledge were proportionately influenced by their education, and number of gravidas. It was influenced by their education because, the majority of mothers who participated in this study were graduates and they understood the concept of the care of low birth weight which was provided by information, education and communication package and they grasped the aspects of the care of low birth weight and its importance more easily. It was influenced by the number of gravida, because the majority of mothers in this study were multigravidas. So they already had exposure to the care of the babies, and it was easy for them to understand the aspects of care of low birth weight babies and also easy to recognize the problems of low birth weight babies if not cared properly.

The key process for care of low birth weight babies in information, education, communication package is an interactive partnership between the mother and the health care personnel. For this partnership to work, the mothers need to have a common understanding of effects of the low birth weight. Realistically, mothers are largely responsible for the day to day management of common problems of their children. To improve the quality of care, nurses should help them to prepare for this task and work to create a more responsible health care system. The findings were supported by Biswas R, et al (2008).

The sixth objective of this study was to find out the association between demographic variables with expressed practice on care of low birth weight babies among mothers.

The demographic variables of the present study indicated that mother's expressed practice were influenced by their husbands occupation, and number of gravida.

In this study there is an association between expressed practice and fathers occupation and number of gravida because majority of subjects were multi gravida, thus they had a past experience in the basic care of newborn babies, and majority of fathers belonged to self employed category as it was convenient to support the mother by spending time with family and also facilitate the care, and provide psychological support. It is also good to say that it provides a trust and security for the baby to enjoy an healthy and cooperative environment by the parents. This finding was supported by Chevalier, Sullivan (2007).

## CHAPTER-VI

### SUMMARY, CONCLUSION, LIMITATIONS, IMPLICATIONS AND RECOMMENDATIONS

This chapter presents the summary of the study conclusion and implications for different areas like nursing practice, nursing education, nursing administration and nursing research limitations and recommendations for further study.

#### SUMMARY OF THE STUDY

A Pre experimental study to evaluate the effectiveness of information, education, communication package on knowledge and expressed practice regarding the care of low birth weight babies among mothers of low birth weight babies at Child Jesus Hospital, Trichy 2011.

#### THE FOLLOWING OBJECTIVES WERE SET FOR THE STUDY

1. To assess the level of knowledge on care of low birth weight babies among mothers.
2. To assess the expressed practice on care of low birth weight babies among mothers.
3. To find out the effectiveness of information, education and communication package on care of low birth weight babies among mothers.
4. To find out the relationship between knowledge and expressed practice on care of low birth weight babies among mothers.
5. To find out the association between demographic variables and post test knowledge on care of low birth weight among mothers.
6. To find out the association between demographic variables and post test expressed practice on care of low birth weight babies among mothers.

The conceptual model of the study was based on Rosen stock's and Becker's health belief model. The study was conducted by using pre experimental (one group pretest post test design). The sample size used for this study was 30 mothers of low birth weight babies. Non probability convenience sampling technique was used to select the samples. The instruments used for data collection were knowledge and

expressed practice questionnaire regarding care of low birth weight babies among mothers of low birth weight babies.

The data was analysed and interpreted in terms of objectives and research hypothesis. Descriptive statistics (frequency, percentage, mean and standard deviation) and inferential statistics (paired-'t'-test, correlation co-efficient and chi-square) were used to test the hypothesis.

#### MAJOR FINDINGS OF THE STUDY

Among the demographic variables, most of the mothers 15(50%) were graduates, majority of them 18(60%), were home makers, 15(50%) majority of fathers were self employed, 13(43.3%) with the monthly income above 5000. Majority of 27(90%) mothers had no disease during their pregnancy, and maximum 28(93.3%) of the mothers did not had low birth weight babies during their last delivery and majority of the mothers 16(53.3%) were multi gravidas.

In the present study the level of knowledge during pretest was, inadequate among 11(36.7%) subject and moderately adequate among 17(56.7%) subjects and adequate among 2(6.7%) subjects, whereas in post test, inadequate among 0(0%) subjects, moderately adequate among 11(36.7%) and adequate among 19(63.3%) subjects.

In the present study the level of expressed practice during pre-test was inadequate among 18(60.0%) subjects, moderately adequate among 10(33.3%) subjects, adequate among 13(43.3%) mothers whereas during post-test was adequate among 13(43.3%) subjects, moderately adequate 16(53.3%), and inadequate among 1(3%) subjects.

In the present study the mean post-test knowledge (80.61) was higher than the pre-test mean (56.36) with the standard deviation (3.198) and the obtained 't' value ( $t=9.133$ ) was significant at  $p<0.01$ , whereas post-test expressed practice mean (74.33) is greater than pre-test expressed mean (53.00) with the standard deviation (2.047) and obtained 't' value ( $t=5.709$ ) was significant at  $P<0.01$ .



The investigator found that there was a significant correlation ( $r=0.821$ ) between the post-test level of knowledge and post-test level of expressed practice, significant at  $p<0.01$ .

Significant association was found between the post-test level of knowledge and selected demographic variables such as mothers education ( $\chi^2 -22.392$ ), number of gravida ( $\chi^2 -8.623$ ). So the stated research hypothesis H4 was accepted for mothers education and number of gravida. The other demographic variables (mothers occupation, fathers occupation, monthly income, disease during pregnancy, low birth weight during last pregnancy) were independent on the post test knowledge.

Significant association was found between the post expressed practice and selected demographic variables such as fathers occupation ( $\chi^2 -17.502$ ), number of gravida ( $\chi^2 -20.206$ ). So the stated research hypothesis H5 was accepted for fathers occupation, and number of gravid. The other demographic variables (mothers education, mothers occupation, monthly, monthly income, disease during pregnancy, low birth weight during last pregnancy) were independent on the post test expressed practice.

## CONCLUSION

The following are the conclusions based on the study findings

Practice toward care of low birth weight babies were deficit among mothers. Mothers education has an effect on mothers practice in different ways. The present study revealed that well educated mothers will use the proper technique in caring the low birth weight babies. While illiterate mothers tend to use traditional method. There is need for educational programme for parents especially mothers with low birth weight babies about care of low birth weight babies.

There is a need to identify the specific problems that exist in homes while providing care for the low birth weight babies. For this, all the information regarding care of low birth weight babies such as, causes, signs and symptoms, kangaroo mother care, signs and symptoms of serious problems, its complication has to be taught frequently. There was a strong relationship between knowledge and expressed

practice of care of low birth weight babies. Therefore if the knowledge of the mother increased, simultaneously the expressed practice also increased.

## IMPLICATIONS FOR NURSING PRACTICE

The findings of the study have several implications on nursing practice, nursing education and nursing research.

### NURSING PRACTICE

Numerous implications can be drawn from the present study for practice which promotes and creates a new dimension to nursing profession. Nursing practice on care of low birth weight babies play a vital role in promoting the child health. Low birth weight babies were the majority group at risk for many health problems. Since the knowledge of mothers of low birth weight babies were inadequate, it is necessary for the nurses to educate the mothers regarding problems of low birth weight babies and its care. Not only in the community, but also in hospital setting the nurses can schedule and plan for the teaching programmes to educate the mothers. Educating the parents must be interesting. In general the education through interactive sessions will be more effective with the help of audio visual aids.

The present study findings may help the nurses to plan their teaching according to the knowledge level of parents. Imparting knowledge regarding the problems of low birth weight babies, complications, sign and symptoms of serious problems, can prevent the increased rate of neonatal mortality and morbidity.

### NURSING EDUCATION

The practical knowledge of the nurse depends upon the education they receive. So the nursing education should prepare the nurses to realize their responsibility as 'nurse educator' and practice as 'nurse communicator' to render their health services in various settings like community, hospitals and other areas. The nursing curriculum has to focus the nursing students to develop quality skills in providing IEC package.

All the aspects of information related to low birth weight babies should be given special focus in the paediatric and community nursing curriculum. In-service education should be carried out periodically to teach nurses and nursing students

regarding the care of low birth weight babies. Continuing education programme can be planned and implement to the nurses to update their knowledge and skills with the new trends in care of low birth weight babies.

#### NURSING ADMINISTRATION

Studies of this nature will help the nursing administrator authorities to recognize the need for conducting in-service education and continuing education programmes for the nursing personnel. The administrator should provide adequate monitory resources in their budget and educative materials like pamphlets, posters, slides, models and cassettes that contain information on all aspects about care of low birth weight babies. Nursing administrator should formulate policies that will include staff and students to be actively involved in health teaching.

A separate health education department can be organized which plays a major role in educating the people about the common problems of low birth weight babies. They should arrange for the mass health education campaigns using IEC package. Nurse administrator should be actively involved in initiating awareness programmes that will help to bring down the neonatal mortality rate.

#### NURSING RESEARCH

The finding of the study helps to expand the body of professional knowledge upon which further researches can be conducted. Well designed quality assurance studies need to be conducted to determine wheather the use of symptoms management guidelines can improve the practice. The Indian literature shows that there are only very limited studies conducted so far. Hence more studies can be conducted in this area in order to strengthen the expanded role of nurses.

#### LIMITATIONS

1. The mothers were not randomly assigned. Hence the convenience sampling restricts the generalization.
2. There was no control on certain extraneous variables like sources of information after the pre-test.

#### RECOMMENDATIONS FOR FURTHER STUDY

1. A pre experimental study to evaluate the effectiveness of IEC package on care of Low Birth Weight babies could be conducted on a larger sample.
2. A pre experimental study to evaluate the effectiveness of IEC package on implications of Kangaroo mother care on growth and development of low birth weight babies.
3. A pre experimental study to evaluate the effectiveness of IEC package on care of Low Birth Weight babies could be conducted with post test after 1 month, 3 months and 6 months.
4. A descriptive study to determine the factors contributing to Low Birth Weight babies can be done.
5. A pre experimental study to evaluate the effectiveness of IEC package on attitudes and skills of mothers in the care of Low Birth Weight babies can be conducted.
6. A true experimental study to evaluate the effectiveness of IEC package on care of Low Birth Weight babies among mothers can be conducted.

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**APPENDIX - A**  
**LETTER REQUESTING FOR VALIDATION**

From

Ms. P. Jeyanthi,  
II yr M.Sc(N),  
Dr. G. Sakunthala College of Nursing,  
Trichy.

To

Through

The Principal,  
Dr.G.Sakunthala College of Nursing,  
Trichy,

Respected Madam,

**Sub: Seeking experts opinion and suggestions on content validity of the tool.**

I P. Jeyanthi, IIYEAR M.Sc(N) student of Dr.G. Sakunthala College of Nursing humbly request you to go through the tools which is to be used for data collection of my dissertation, to be submitted to Dr. M.G.R. Medical University, Guindy, Chennai, as partial fulfilment of my university requirements for the award of the degree of Masters of Science in Child Health Nursing.

The problem statement is “A Pre-experimental study to evaluate the effectiveness of Information Education and Communication Package regarding care of low birth weight babies in terms of knowledge and expressed practice among mothers in Child Jesus Hospital, Trichy”.

With regard to this, I request you to give your valuable suggestions regarding the appropriateness of the tool, which I have enclosed. Kindly give your expert comments on the tool.

I also request you to kindly sign the certificate stating that the tool has been validated. Your kind co-operation and your expert judgment will be highly appreciated.

Thanking you

Date:  
Place:

Yours faithfully  
**Ms. P. Jeyanthi**

## **APPENDIX - B**

### **LIST OF EXPERTS CONSULTED FOR THE CONTENT VALIDITY OF RESEARCH TOOL**

1. Mrs.S. Prabavathy, M.Sc.(N).,  
Principal,  
Kongu Vellalar College of Nursing,  
Erode.
2. Mrs.Punithavathy, M.Sc.(N).,  
Asst. Professor,  
Sharmila College of Nursing,  
Besant Nagar,  
Chennai.
3. Mrs. N. Saraswathy, M.Sc.(N).,  
Professor,  
Madha College of Nursing,  
Madurai,
4. M. Vani Chitra Devi, M.Sc.(N).,  
Vice Principal,  
Karpaga College of Nursing,  
Pudukottai.
5. Dr. T.R.R. Krishna, M.D.(Paediatrics),  
Paediatrician & Neonatologist,  
Dr. G. Viswanathan Speciality Hospitals,  
Trichy.

**APPENDIX - C**  
**RESEARCH INSTRUMENT (ENGLISH)**  
**QUESTIONNAIRE ON LOW BIRTH WEIGHT**

**Introduction**

Good morning, I am P.Jeyanthi, II Yr, M.Sc.(N)., student of Dr.G. Sakunthala College of Nursing, Trichy. I will ask you a few questions regarding low birth weight. This is only for educational purpose. The confidentiality will be strictly maintained. Interview schedule to assess the knowledge of mothers regarding care of low birth weight babies.

**PART - A**

Demographic data

**Instruction**

I will explain every questions, please listen carefully and choose the response and mark (✓) in the questionnaire sheet.

**Demographic Data**

- 1) Education of mother
  - a) Illiterate ( )
  - b) Primary school ( )
  - c) High school and higher secondary ( )
  - d) Graduates ( )
- 2) Occupation of mother
  - a) Working ( )
  - b) Home maker ( )
- 3) Occupation of father
  - a) Unemployed ( )
  - b) Self Employed ( )
  - c) Clerical ( )
  - d) Professional ( )

- 4) Family income (month)
- a) Below Rs1000 ( )
  - b) Rs 1001- Rs.3000 ( )
  - c) Rs 3001 - Rs 5000 ( )
  - d) Above Rs 5001 ( )
- 5) Presence of illness during pregnancy
- a) Yes ( )
  - b) No ( )
- 6) Previous history of LBW
- a) Yes ( )
  - b) No ( )
- 7) Number of gravida
- a) primi gravida ( )
  - b) multi gravida. ( )

## PART - B

### Knowledge Questionnaire

1. The average birth weight of normal newborn
  - a. Above 3.500gms
  - b. 2500-3000gms
  - c. 2000-2500 gms
  - d. 1500-2000gms
2. Cause for low birth weight babies are
  - a. Maternal malnutrition
  - b. Obesity of mother
  - c. Advanced maternal age
  - d. Consanguineous marriage
3. One of the main problem in cause of low birth weight babies at term is
  - a. Respiratory distress
  - b. Hypothermia
  - c. High mortality
  - d. High morbidity
4. The mother should initiate breast feeding (Normal delivery)
  - a. Immediately with in ½ to 1hr
  - b. After 2 hrs
  - c. After 4 hrs
  - d. After 3 hrs
5. In case of cession section, the mother can feed the baby
  - a. Within 1hr
  - b. Within 4 hrs
  - c. After one day
  - d. After 6 hrs
6. Bath for the low birth weight baby can be given
  - a. Immediately
  - b. After 1 day
  - c. Still baby is normal
  - d. After one month
7. The room should be kept for LBW baby
  - a. Hot
  - b. Cool
  - c. Warm
  - d. Darken without light
8. The mother can feel the warmth of the baby by monitoring
  - a. The baby's sole by seeing its colour
  - b. The baby's eyes
  - c. The baby's cry
  - d. By thermometer
9. One of the indirect parameters to monitor the adequate feeding
  - a. Weight check up
  - b. Frequent urination
  - c. Frequent stool
  - d. Demanding for breast feed
10. Which one of the following is best for LBW baby
  - a. Expressed breast milk
  - b. Artificial feeding
  - c. Bottle feeding
  - d. Exclusive breast feeding

11. The main thing to be noted during covering of the LBW babies are
  - a. Covering of genitalia
  - b. Covering of the eyes
  - c. Covering of fontanelles
  - d. Covering of the ears
12. The LBW new born have difficulty in maintaining normal body temperature because of
  - a. Large body surface area
  - b. Less subcutaneous fat on the skin
  - c. They are more active than normal newborn
  - d. Reduced ability to produce heat
13. If the newborn does not take breath immediately, colour of skin is
  - a. Black
  - b. Pink
  - c. Red
  - d. Blue
14. The simple and natural way of preventing infection in a newborn is by
  - a. Breast feeding
  - b. Giving cow's milk
  - c. Formula feeding
  - d. Vaccination
15. Best way to keep the LBW warm naturally is by
  - a. Dressing in warm cloth
  - b. Holding in sunlight.
  - c. Placing hot water in the room
  - d. Placing between mothers breast
16. The Signs and Symptoms of infection is
  - a. Change in body temperature and poor sucking
  - b. Good sucking and swallowing
  - c. Weight gain and pink color.
  - d. Good sucking and poor crying
17. After breastfeed the baby should
  - a. Keep on the cradle
  - b. Feed some water
  - c. Burp
  - d. Sleep
18. The way to wash the clothes is
  - a. Wash with other clothes
  - b. Wash separately
  - c. Wash by using antiseptic lotions
  - d. Wash by using washing machines
19. Which one of the following is more risk to cause infection for LBW babies
  - a. Respiratory infection
  - b. Congenital anomalies
  - c. Intracranial heamorrhage
  - d. Anaemia

20. One of the important aspect in preventing low birth weight babies
- a. Healthy diet, taking multi micro nutrients, Avoiding stress during pregnancy
  - b. Healthy diet, exercise
  - c. Taking multi micro nutrients, bed rest
  - d. Avoiding stress
21. Kangaroo mother care means
- a. Skin to skin care
  - b. Baby care
  - c. Mother care
  - d. Supportive care
22. Kangaroo can be practiced in
- a. Hospital and home
  - b. Hospital only
  - c. Home only
  - d. Only in a sterile area.

**PART - C**

**Expressed Practice Questionnaires**

<b>Sl. No.</b>	<b>Practice</b>	<b>Yes</b>	<b>No</b>
1	Will you warm the hands before handling the baby		
2	Do you wash the hands before handling the baby		
3	Will you burb the baby after each feeding		
4	Do you take extra fluids during lactation		
5	Do you dry your babies dress in sunlight		
6	Are you practicing artificial feeding in between the breast feed		
7	Had you immunize your baby properly at a right time		
8	Are you mummifying your baby		
9	Are you maintaining bonding with your baby		
10	Will your clean your breast before and after each feed		



## நேர்முக தேர்வின் வடிவமைப்பு - தமிழாக்கம்

- பகுதி-1 : தாய்மார்கள் பற்றிய விவரம்.  
குறிப்பு : பின்வரும் விவரங்களை கவனமாக படித்து சரியான பதிலுக்கு அதன் பக்கவாட்டில் (✓) செய்யவும்.

1. தாயின் கல்வித் தகுதி
  - a. படிப்பறிவற்றவர்கள் ( )
  - b. ஆரம்பக்கல்வி ( )
  - c. மேல்நிலை மற்றும் உயர்நிலைக்கல்வி ( )
  - d. பட்டப்படிப்பு ( )
2. தாயின் தொழில்
  - a. வேலைக்கு செல்பவர் ( )
  - b. வீட்டில் இருப்பவர் ( )
3. தந்தையின் தொழில்
  - a. வேலை இல்லாதவர்கள் ( )
  - b. சுயதொழில் ( )
  - c. எழுத்துப்பணி ( )
  - d. தொழில்சார் ( )
4. குடும்ப வருமானம்
  - a. 1000 ரூபாய்க்கு குறைவு ( )
  - b. ரூபாய் 1001 - ரூபாய் 3000 ( )
  - c. ரூபாய் 3001 - ரூபாய் 5000 ( )
  - d. ரூபாய் 5001-ற்க்கு மேல் ( )
5. கர்ப்பக்காலத்தில் போது ஏதேனும் நோய் உள்ளதா?
  - a. ஆம் ( )
  - b. இல்லை ( )
6. முன் பிரசவக்காலத்தின் போது எடைககுறைவுள்ள குழந்தை இருக்கிறதா?
  - a. ஆம் ( )
  - b. இல்லை ( )
7. கர்ப்பத்தின் எண்ணிக்கை
  - a. முதல் கர்ப்பம் ( )
  - b. இரண்டுக்கு மேல் ( )

## அறிவு சார்ந்த மதிப்பீட்டு முறை

1. பிறந்த குழந்தையின் சராசரி எடை
  - a. 3500 கிராம் மேல்
  - b. 2500 – 3000 gm
  - c. 2000 – 2500gm
  - d. 2500 – 3000 gm
2. எடை குறைவுக்கான காரணம்
  - a. கர்ப்பக்கால உணவுக்குறைபாடு
  - b. உடல் பருமன்
  - c. தாயின் வயது முதிர்வு
  - d. உடன் சொந்தத்திற்குள் குறைபாடு
3. எடைகுறைவுள்ள குழந்தையின் பிறப்பின்போது அக்குழந்தைக்கு ஏற்படும் பிரச்சனை
  - a. மூச்சுத்திணறல்
  - b. குறைந்த வெப்பம்
  - c. மரணம்
  - d. நோய் வாய்ப்புதல்
4. தாய் தன் குழந்தைக்கு முதல் முறையாக தாய்ப்பாலை எப்போது ஆரம்பிக்க வேண்டும்
  - a. பிறந்த அரைமணி முதல் 1 மணி நேரத்திற்குள்
  - b. 2 மணி நேரத்திற்கு பிறகு
  - c. 4 மணி நேரத்திற்கு பிறகு
  - d. 3 மணி நேரத்திற்கு பிறகு
5. சிசேரியன் மூலமாக பிறக்கும் குழந்தைக்கு எப்போது தாய்ப்பால் ஆரம்பிக்க வேண்டும்.
  - a. 1 மணி நேரத்திற்குள்
  - b. 4 மணி நேரத்திற்குள்
  - c. ஒரு நாள் கழித்து
  - d. 3 மணி நேரத்திற்குள்
6. எடை குறைவுள்ள குழந்தையை எப்போது குளிக்க வைக்கலாம்
  - a. பிறந்தவுடனே
  - b. ஒரு நாள் கழிந்த பிறகு
  - c. குழந்தை சராசரியான நிலையை அடையும் போது
  - d. ஒரு மாதம் கழித்து
7. குழந்தை இருக்கும் அறையை எப்படி வைத்துக் கொள்ள வேண்டும்
  - a. சூடாக
  - b. குளிர்ச்சியாக
  - c. வெது வெதுப்பாக
  - d. இருட்டாக

8. தாய் தன் குழந்தையின் வெதுவெதுப்பை எப்படி கண்காணிப்பது
- குழந்தையின் உள்ளங்கை நிறத்தை பார்த்தல்
  - குழந்தையின் கண்களை பார்த்தல்
  - குழந்தையின் அழகை
  - தெர்மாமீட்டர் (கருவி)
9. தாய் தன் குழந்தை போதுமான அளவு பால்குடிப்பதை எப்படி மறைமுகமாக அறிவது.
- எடை பார்த்தல்
  - பசிக்காக அழுகுதல்
  - அடிக்கடி மலம் கழித்தல்
  - அடிக்கடி சிறுநீர் கழித்தல்
10. கீழ்காண்பவற்றுள் எடை குறைவுள்ள குழந்தைக்கு எது சிறந்தது?
- பீச்சினத்தாய்ப்பால்
  - செயற்கை பால்
  - புட்டிப்பால்
  - 4 முதல் 6 மாதம் வரை தாய்ப்பால் மட்டுமே கொடுத்தல்
11. குழந்தையை போர்த்தும் போது கவனிக்க வேண்டியவை
- பிறப்புறுப்பை மறைத்தல்
  - கண்களை மறைத்தல்
  - உச்சந்தலையை மறைத்தல்
  - காதுகளை மறைத்தல்
12. எடை குறைவுள்ள குழந்தைக்கு தன் உடல் வெப்பத்தை தக்கவைத்துக் கொள்வதில் பிரச்சனை எதனால் ஏற்படுகிறது?
- அதிக உடல் பரப்பளவு
  - தோல் அடியில் கொழுப்பு இல்லாததால்
  - சாதாரண குழந்தையை விட அதிக துடிப்பு
  - வெப்பத்தை உற்பத்தி செய்ய இயலாமை
13. குழந்தை பிறந்தவுடன் மூச்சுவிடவில்லை என்றால், அதன் தோலின் நிறம் என்ன?
- கருமை
  - இளஞ்சிவப்பு
  - சிவப்பு
  - நீளம்
14. குழந்தைக்கு தொற்றுநோய் வராமல் தடுப்பதற்கு எளிமையான இயற்கை வழிமுறை என்ன?
- தாய்ப்பால்
  - பசும்பால்
  - புட்டிப்பால்
  - தடுப்பூசி
15. எடைகுறைந்த குழந்தையை இயற்கையான வெதுவெதுப்பில் வைப்பதற்கான சிறந்த வழி
- வெதுவெதுப்பான ஆடை அணிதல்
  - குழந்தையின் அறையில் வெண்ணீரை வைத்தல்
  - தாயின் மார்புக்கிடையில் அறவனைத்தல்

16. கிருமி தாக்கத்திற்கான அறிகுறிகள் என்ன?
- உடல்வெப்பநிலை மாற்றம், உறிஞ்சுதல் பிரச்சனை
  - நன்றாக உறிஞ்சுதல், விழுங்குதல்
  - எடை கூடுதல், இளஞ்சிவப்பு நிறம்
  - நன்றாக உறிஞ்சுதல், சினுங்கல்
17. தாய்ப்பால் குடித்த பிறகு குழந்தையை
- தொட்டிலில் போட வேண்டும்
  - தண்ணீர் கொடுக்க வேண்டும்
  - தோளில் போட்டு குழந்தையின் முதுகில் தட்ட வேண்டும்
  - தூங்க வைக்க வேண்டும்
18. துணியை துவைக்கும் முறை
- மற்ற துணிகளுடன் துவைக்க வேண்டும்
  - தனியாக துவைக்க வேண்டும்
  - கிருமிநாசினியில் ஊரவைத்த பிறகு துவைப்பது
  - வாசிங் மிஸின் (சலவை இயந்திரம்)
19. கீழ்காண்பவற்றுள், எடைகுறைவுள்ள குழந்தைக்கு தொற்றுநோய் தாக்கத்தை விளைவிக்கும் பாதிப்பு எது?
- மூச்சுக்குழாய் பிரச்சனை
  - பிறப்பின் குறைபாடு
  - இரத்தக்குழாய் வெடித்தல்
  - இரத்தச்சோகை
20. எடைக்குறைவுள்ள குழந்தை பிறப்பதை தவிர்ப்பதற்கு முக்கிய நிகழ்வு எது?
- சத்துள்ள உணவு, சத்துமாத்திரைகள், மன அழுத்தத்தை தடுத்தல்
  - சத்தமான உணவு, கனமான உடற்பயிற்சி
  - சத்துமாத்திரை உட்கொள்வது, ஓய்வு
  - மன அழுத்தத்தை தவிர்த்தல்
21. கங்காரு கவனிப்பு முறை என்றால்
- உடலோடு உடலை அனைத்து கொள்ளுதல்
  - குழந்தை பராமரிப்பு
  - தாயின் பராமரிப்பு
  - கூடுதல் கவனிப்பு
22. கங்காரு கவனிப்பு முறை எங்கே கடைபிடிக்கலாம்
- மருத்துவமனை மற்றும் வீடு
  - மருத்துவமனை மட்டும்
  - வீடு மட்டும்
  - சுத்தமான இடத்திய மட்டும்

**பழக்கம் சார்ந்த மதிப்பீட்டு முறை**

வரிசை எண்	தகவல்கள்	ஆம்	இல்லை
1	குழந்தையை தொடுவதற்கு முன் கையை வெதுதெுப்பாக வைப்பீர்களா?		
2	குழந்தையை தொடுவதற்கு முன் கையை கழுவுவீர்களா?		
3	ஓவ்வொரு முறை பாலூட்டியபிறகு குழந்தையை தோளில் போட்டு தட்டிக் கொடுப்பீர்களா?		
4	பாலூட்டும் காலகட்டத்தில் நீங்கள் ஏதேனும் திரவ உணவு அருந்துவீர்களா?		
5	குழந்தையின் ஆடைகளை சூரிய வெளிச்சத்தில் உலர்த்துவீர்களா?		
6	தாய்ப்பால் கொடுக்கும் காலத்திற்கிடையில் புட்டிப்பால் கொடுக்கும் பழக்கம் உள்ளதா?		
7	குழந்தைக்கு தக்க சமயத்தில் நோய் தடுப்பு முறைகளை கடை பிடிப்பீர்களா?		
8	குழந்தையை தாயின் அரவணைப்பிலேயே வைத்திருப்பீர்களா?		
9	குழந்தையை எப்போதும் போர்த்திவைப்பீர்களா?		
10	தாய்ப்பால் கொடுக்கும் முன்பும் பிறகும் மார்பகத்தை சுத்தமாக வைத்துக் கொள்வீர்களா?		

**APPENDIX - D**

**SCORING KEY**

**ITEM SCORE 1 - KNOWELDE QUESTIONAIRE**

Item	a	b	c	d
1	0	1	0	0
2	1	0	0	0
3	1	0	0	0
4	1	0	0	0
5	0	1	0	0
6	0	0	1	0
7	0	0	1	0
8	1	0	0	0
9	0	1	0	0
10	0	0	0	1
11	0	0	1	0
12	0	1	0	0
13	0	0	0	1
14	1	0	0	0
15	0	0	0	1
16	1	0	0	0
17	0	0	1	0
18	0	0	1	0
19	1	0	0	0
20	1	0	0	0
21	1	0	0	0
22	1	0	0	0

## ITEM SCORE 2 - EXPRESSED PRACTICE QUESTIONARIE

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Item	Yes	No
1	1	0
2	1	0
3	1	0
4	1	0
5	1	0
6	0	1
7	1	0
8	1	0
9	1	0
10	1	0

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## எடை குறைவுள்ள குழந்தைகளுக்கான பாதுகாப்பு முறைகள்

பாடம் : எடை குறைவுள்ள குழந்தைகளுக்கான பாதுகாப்பு முறைகள்.

குழு : எடை குறைவுள்ள குழந்தைகளின் தாய்மார்கள்.

நேரம் : காலை 9.00-மாலை 4.00 வரை.

இடம் : அமெரிக்கன் மருத்துவமனை.

கற்பிக்கும் முறை : கற்பித்தல் மற்றும் கலந்துறையாடல்.

கற்பிக்க உதவும் உபகரணங்கள்: கையேடு கணினி செயல்பாடு மற்றும் விளக்கவுரை.

### பொதுவான பொருளுரை

எடை குறைவுள்ள குழந்தைகளின் தாய்மார்கள் குறைமாத குழந்தைகளின் கவனிப்பு முறைகளை பற்றிய விவரங்களை அறிந்துகொள்வார்கள். பின்பு அதை அவர்கள் கடைபிடிப்பார்கள்.

### குறிப்பிட்ட பொருளுரை

- எடை குறைவுள்ள குழந்தையை பற்றி கூறுக.
- எடை குறைவுள்ள குழந்தைகான காரணங்களை விவரிக்கவும்.
- எடைகுறைவால் ஏற்படும் முக்கிய பிரச்சனைகளை வரிசைப்படுத்துக.
- வெப்பநிலை மாற்றத்தை பற்றி விவரிக்கவும்.
- எடை குறைவுள்ள குழந்தைகளுக்கான பாதுகாப்பு முறைகள் பற்றி விவரிக்கவும்.
- எடைகுறைவால் ஏற்படும் பிரச்சனைகளை கண்டறிதல்.
- எடை குறைவுள்ள குழந்தைகளுக்கு ஏற்படும் பின்விளைவுகளை வரிசைப்படுத்துக.



குறிக்கோள்	நேரம்	பொருளடக்கம்	கற்பிப்பவர் செயல்பாடுகள்	கற்பவர் செயல்பாடுகள்	கற்பிக்க உதவும் உபகரணங்கள்	மதிப்பீடு
எடை குறைவுள்ள குழந்தையை பற்றி கூறுக.	2நிமி	<p><b>முன்னுரை</b></p> <p>பிறந்த குழந்தைகளுக்கு பொதுவாக எடை குறைவு என்பது அவர்கள் வளர்ச்சியின் போது, சத்து குறைப்பாட்டிற்கு ஒரு முக்கிய காரணியாக உள்ளது, இப்படிப்பட்ட குழந்தைகளுக்கு தொற்று வியாதிகளும், உடல் மற்றும் மனநல குறைபாடுகளும், எளிதில் தாக்குகின்றன. ஆதலால் இந்த எடை குறைவுள்ள குழந்தைகளின் பிரச்சனையை சமாளிப்பதற்கு சிறந்த கவனம் செலுத்த வேண்டும். மேலும் இவ்வகை குழந்தைகளின் பெற்றோர்களும், குடும்பத்தினரும், சுற்றுப்புறத்தாரும் இக்குழந்தைகள் சமுதாயத்தில் நல்ல முறையில் வாழ்வதற்கு பொறுப்பேற்றுக் கொள்ள வேண்டும்.</p> <p>வரையறை : அர்த்தம் எந்த ஒரு குழந்தை பிறக்கும் போது 2,500 கிலோவிற்கு குறைவாக இருந்தால் அக்குழந்தை எடை குறைவுள்ள குழந்தையாக கருதப்படும்.</p>	விளக்கவுரை	கலந்துரையாடல் மற்றும் பங்கேற்றல்	கணிணி மூலம் கற்பித்தல்	எடை குறைவுள்ள குழந்தை என்றால் என்ன?
எடை குறைவுள்ள குழந்தைகளை காரணங்களை விவரிக்கவும்.	5நிமி	<p>காரணங்கள்</p> <ul style="list-style-type: none"> <li>• கர்ப்பகாலத்தில் உணவுகுறைபாடு</li> <li>• நஞ்சுக்கொடி பிரச்சனை</li> <li>• பல முறை கற்பமாகுதல்</li> </ul>	விளக்கவுரை	கலந்துரையாடல் மற்றும் பங்கேற்றல்	கணிணி மூலம் கற்பித்தல்.	எடை குறைவுள்ள குழந்தைகளை காரணங்கள் யாவை.

<p>எடைகுறைவால் ஏற்படும் முக்கிய பிச்சனைகள் வரிசைப்படுத்துக.</p>	<p>5நிமி</p>	<ul style="list-style-type: none"> <li>• கருப்பையில் ஏற்படும் தொற்றுநோய்கள்</li> <li>• கர்ப்பகாலத்தின் போது எடுத்துக்கொள்ளப்படும் பல்வேறு மருந்துகளும், கதிர்வீச்சுகளின் பாதிப்புகள்</li> <li>• தாயின் உடல் ரீதியான பிரச்சனைகள்</li> <li>• மரபணு மற்றும் குரோமோசோம் பிரச்சனைகள்</li> <li>• கர்ப்பகாலத்தின் போது ஏற்படும் இரத்தக்கொதிப்பு</li> </ul> <p>எடைகுறைவால் ஏற்படும் முக்கிய பிரச்சனைகள்</p> <ul style="list-style-type: none"> <li>• உணவு மற்றும் பால் உட்கொள்வதில் பிரச்சனை</li> <li>• உடல் வெப்ப குறைவு</li> <li>• பல்வேறு தொற்றுவியாதிகள்</li> </ul>	<p>விளக்கவுரை</p>	<p>கலந்துரையாடல் மற்றும் பங்கேற்றல்</p>	<p>கணிணி மூலம் கற்பித்தல்</p>	<p>எடைகுறைவால் ஏற்படும் முக்கிய பிச்சனைகள் வரிசைப்படுத்துக.</p>
<p>வெப்பநிலை மாற்றத்தை பற்றி விவரிக்கவும்</p>	<p>8நிமி</p>	<p>வெப்பநிலை மாற்றம்</p> <p>எடைகுறைவுள்ள குழந்தைகளின் நீர் மற்றும் வெப்ப நிலையை சீராக வைத்துக்கொள்வது முக்கியமான ஒன்றாகும். இக்குழந்தைகளுக்கு தோல் மெல்லியதாக உள்ளதால் நீர் மற்றும் வெப்பம் அதிகமாக வெளியேறும் வாய்ப்பு உள்ளது.</p> <p>வெப்பம் மற்றும் நீர், கீழ்க்காணும் முறைகளில் வெளியேறும்.</p> <ul style="list-style-type: none"> <li>• கதிர்கள்</li> <li>• வெப்பத்திரவத்தின் ஊடாகச் செல்லுதல்</li> <li>• வெப்பக்கடத்தல்</li> <li>• ஆவியாகி மறைவுறு</li> </ul>	<p>விளக்கவுரை</p>	<p>கலந்துரையாடல் மற்றும் பங்கேற்றல்</p>	<p>கணிணி மூலம் கற்பித்தல்</p>	<p>வெப்பநிலை மாற்றத்தை பற்றி கூறுக.</p>

	<p>கதிர்கள் மின்காந்த கதிர்வீச்சு வழியாக உடலின் வெப்பம் வெளியேறும்.</p> <p>எடுத்துக்காட்டு குழந்தைக்கு எடைபார்க்கும் போது, எடை பார்க்கும் கருவியின் மேல் துணியை விரித்து போட வேண்டும். இல்லாவிட்டால், மின்காந்த கதிர்வீச்சு மூலமாக குழந்தையின் உடலில் இருந்து வெப்பம் நேரடியாக வெளியேறும்.</p> <p>ஆவியாகி மறைவுறு எடைகுறைவுள்ள குழந்தையின் தோல் மிகவும் மெல்லியதாக இருப்பதினால், வெகு விரைவில் வெப்பம் ஆவியாக வெளியேறும். இம்முறையில் குழந்தை மூச்சு விடுவதினாலும் வெப்பம் வெளியேறும்.</p> <p>வெப்பம் திரவத்தின் ஊடாக செல்லுதல் உடலில் உள்ள வெப்பம், நீருடன் சேர்ந்து வெளியேறும். குளிர்ச்சியான சுற்றுப்புறத்தில் இருந்தால், உடலில் உள்ள வெப்பம், சுற்றுப்புறத்திற்கேற்ப குறைந்திடும்.</p> <p>வெப்பகடத்தல் உடலில் இருந்து வெப்பம் மற்றும் நீர், நம் உடலில் இருந்து அருகில் உள்ள பொருளுக்கு வெளியேறும்.</p> <p>எடுத்துக்காட்டு குழந்தை வெறும் தரையில் போடுதல்.</p>	விளக்கவுரை	கலந்துரையாடல் மற்றும் பங்கேற்றல	கணிணி மூலம் கற்பித்தல்	
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<p>எடை குறைவுள்ள குழந்தைகளுக்கான பாதுகாப்பு முறைகள் பற்றி விவரிக்கவும்</p>	<p>10நிமி</p>	<p>குறைவான எடையுள்ள குழந்தைகளுக்கான கவனிப்பு முறைகள்</p> <p>உடல் எடை குறைவுள்ள குழந்தைகளுக்கு உடல் வெப்பநிலை குறைப்பாடு முக்கிய காரணமாக அமையும் வகையில். அதை தவிர்க்க வேண்டும், இக்குழந்தைகளுக்கு தோல் அடியில் இருக்கும் கொழுப்பு குறைவாக இருப்பதால், உடல் வெப்பம் அதிகமாக வெளியேறும். அதமட்டுமின்றி, இக்குழந்தைகளுக்கு, கல்லீரலில் குறைவான குளுக்கோஸ் தங்குவதால், வெகுவிரைவாக உடல் வெப்பம் குறையும்.</p> <p>உடல் வெப்ப நிலையை சீர்ப்படுத்தல்</p> <p>பொதுவாக குளிர்காலங்களில் குழந்தைகளின் உடல் வெப்பநிலை ஒரே சீராக அமையாது. அதனால் குழந்தைகளுக்கு உடல் வெப்பநிலை குறைபாடு ஏற்படுகின்றன அதனால் குழந்தைகளை கவனமாக கவனித்தல் வேண்டும்.</p> <ul style="list-style-type: none"> <li>• குழந்தையின் உடல்வெப்பம் சீரான நிலையை அடையும்வரை குளிக்கவைக்க கூடாது.</li> <li>• எப்பொழுதும், குழந்தையை போர்த்தி வைக்க வேண்டும்.</li> <li>• தாயின் அரவணைப்பில் எப்பொழுதும் இருக்க வேண்டும்.</li> <li>• குளிர்காலத்தில், குழந்தை அணியும் ஆடைகளையும், போர்வைகளையும், உபயோகிக்கும் முன் வெது வெதுப்பாக வைக்க வேண்டும்.</li> <li>• குழந்தைக்கு எப்பொழுதும் கைஉறை, காலுறை மற்றும் சவட்டர்கள் அணிவிக்க வேண்டும்.</li> </ul>	<p>விளக்கவுரை</p>	<p>கலந்துரையாடல் மற்றும் பங்கேற்றல்</p>	<p>கணிணி மூலம் கற்பித்தல்</p>	<p>எடை குறைவுள்ள குழந்தைகளுக்கான பாதுகாப்பு முறைகள் பற்றி கூறுக.</p>
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	<ul style="list-style-type: none"> <li>• குழந்தை இருக்கும் அறையில் 200 வாட்ஸ் பல்பை 18” தொலைவில் வைக்க வேண்டும். இவ்வாறு வைப்பதனால் குழந்தைக்கு கூடுதல் வெதுவெதுப்பை தரும்.</li> <li>• தாயும் சேயும் 40 நாட்களுக்கு தனிமையில் இருப்பது கூடுதல் பாதுகாப்பாக இருக்கும்.</li> </ul> <p>வெப்பநிலையை கண்காணத்தில்</p> <ul style="list-style-type: none"> <li>• குழந்தையின் வெப்பநிலையை ஒரு தாய் அவர்களை தொடுவதின் மூலமே உணரமுடியும் அப்படி தொடுகையில், அதன் வயிற்றுப் பகுதி, கை, கால், மற்ற இடங்களை விட சற்று அதிக வெதுவெதுப்பாக இருக்கும்.</li> <li>• குழந்தையின் கை கால் சற்று வெதுவெதுப்பாகவும், இளஞ்சிவப்பாகவும் இருப்பதின் மூலம், குழந்தை குளிர்ச்சியால் அவதிப்படவில்லை என்பதை அறிந்து கொள்ளலாம்.</li> <li>• நீளநிறமாக மாறினால் குழந்தையின், உடல் வெப்பநிலை தாழ்வாக உள்ளதை அறிந்து கொள்ளலாம், இது உடல் நிலைக்கேடு. இப்படி இருக்கும் போது வெப்பநிலையை அதிகப்படுத்தல் வேண்டும்.</li> </ul> <p>குழந்தையின் குளியல் மற்றும் மேனி பாதுகாப்பு</p> <ul style="list-style-type: none"> <li>• வெயில் காலத்தின் போது குழந்தையை தினமும் குளிக்க வைக்க வேண்டும்.</li> <li>• குழந்தையிருக்கும் அறை குளிக்காற்று வீசாமல் இருக்க வேண்டும்.</li> </ul>	விளக்கவுரை	கலந்துரையாடல் மற்றும் பங்கேற்றல்	கணிணி மூலம் கற்பித்தல்	
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	<ul style="list-style-type: none"> <li>• சுத்தமான, வெந்நீரில் குளிக்க வைத்தல் வேண்டும். குளிக்கும் போது, குழந்தையை, நீரில் மூல்கடிக்காமல் குளிக்க வைத்தல் வேண்டும். (தொப்புள்கொடி விழும் வரை)</li> <li>• கடுமையான இரசாயணம் உள்ள சோப்பை உபயோகிக்க கூடாது.</li> <li>• குளிக்கவைக்கும் போது, கண்களை பஞ்சினால் துடைக்க வேண்டும். துடைக்கும் முன், பஞ்சை பிழிந்து விட்டு துடைக்க வேண்டும்.</li> <li>• வயிற்றுக்கு கீழ்பகுதியை கடைசியில் சுத்தம் செய்ய வேண்டும். அவ்வாறு செய்வதன் மூலம், கிருமி தாக்குதலை கட்டுபடுத்தலாம்.</li> <li>• குழந்தையை குளித்தவுடனே துண்டினால் துடைத்துவிட வேண்டும்.</li> <li>• துடைக்கும் போது மென்மையாக துடைக்க வேண்டும். அழுத்தி துடைப்பதை தவிர்த்தல் வேண்டும். ஏனென்றால் அப்படி துடைப்பதன் மூலம் உடலின் பாதுகாப்பான மாவு போன்ற பாதுகாப்பு அறணையும் சேர்த்து துடைத்து விடுவோம்.</li> <li>• குளிர் காலத்தின் போது குழந்தையை குளிக்க வைப்பதை விட, துடைத்துவிடுதல் பாதுகாப்பானது.</li> <li>• குளித்த பிறகு, powder-ஐ, அக்குள் மற்றும் மற்றும் தொடையின் இடுக்கில் போட வேண்டும். அப்படி போடும் பொழுது கண்கள் மற்றும் மூக்கினுள் போகாதவாறு கவனிக்க வேண்டும்.</li> </ul>	விளக்கவுரை	கலந்துரையாடல் மற்றும் பங்கேற்றல்	கணிணி மூலம் கற்பித்தல்	
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	<ul style="list-style-type: none"> <li>• குளித்த பிறகு தாய்பால் குடிக்கவைப்பது அவசியமான ஒன்று அது குழந்தையின் தூக்கத்தை மேம்படுத்த உதவும்.</li> <li>• 2 முதல் 3 மணி நேரம் தூங்கின பிறகு, அடுத்த முறை பால்குடிக்க தயாராகியிருக்கும்.</li> </ul> <p>கண் பராமரிப்பு</p> <ul style="list-style-type: none"> <li>• கண்களை தினமும் ஈரமான பஞ்சினால் துடைக்க வேண்டும்.</li> <li>• தாய்ப்பாலை கண்களில் விடுவதின் மூலம், கண்பொங்குதளை, கட்டுப்படுத்தலாம்.</li> <li>• கண்மையிடுதல், கண்களுக்கு கேடு விளைவிக்கும்.</li> </ul> <p>குழந்தைகளுக்கு ஆடை உடுத்தும்முறை</p> <ul style="list-style-type: none"> <li>• தளர்ந்த மற்றும் மெருதுவான பருத்தி ஆடைகளை அணிவிக்க வேண்டும்.</li> <li>• ஆடைகளில் பெரிய பட்டன்களை தவிர்க்க வேண்டும். ஏனென்றால் அவை குழந்தையின் தோல்களை காயப்படுத்தும்.</li> <li>• குழந்தையின் ஆடைகளை பாச்சைகுண்டு போட்டு வைக்க கூடாது. அவ்வாறு செய்வது மஞ்சள்காமாலை தாக்குதலை உண்டாக்க வாய்ப்புள்ளது. அப்படி செய்தாலும் அணிவதற்கு முன்னதாக வெயிலில் காயவைக்க வேண்டும்.</li> </ul>	விளக்கவுரை	கலந்துரையாடல் மற்றும் பங்கேற்றல்	கணிணி மூலம் கற்பித்தல்	
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	<p>கருவறையின் சூழ்நிலை</p> <ul style="list-style-type: none"> <li>• குழந்தைக்கு கருவறையில் உள்ள சூழ்நிலையை ஏற்படுத்தி கொடுக்க வேண்டும். அவ்வாறு அமைத்து கொடுப்பது குழந்தையின் பாதுகாப்பிற்கு உகந்ததாக அமையும்.</li> <li>• மெருதுவான, சவுகரியமான படுக்கையை அமைத்து கொடுத்தல் வேண்டும்.</li> <li>• அதிக வெளிச்சம், சத்தம் மற்றும் அழுத்தமாக கையாளுதல் மற்றும் வலியை ஏற்படுத்தும் செயல்களை தடுத்தல் வேண்டும்.</li> <li>• குழந்தையை எப்போதும் போர்த்தி வைக்க வேண்டும்.</li> <li>• குழந்தையின் தலையை போர்த்தி வைத்தல் மிகவும் முக்கியமானது.</li> </ul> <p>தெற்றமல் கம்பர்ட்டு</p> <ul style="list-style-type: none"> <li>• “கங்காரு கவனிப்பு” முறையை கடைபிடித்தல் வேண்டும். அதன் மூலம் தாய்சேய் பிணைப்பை அதிகப்படுத்தும் மற்றும் குழந்தையின் அன்பினை அதிகப்படுத்தலாம்.</li> </ul> <p>பால் குடுக்கும் முறை</p> <ul style="list-style-type: none"> <li>• பால் குடுக்கும் போது குழந்தையை, மார்புக்கு நேராக பிடிக்க வேண்டும். (பிறந்தவுடன்)</li> </ul>	<p>விளக்கவுரை</p> <p>விளக்கவுரை</p>	<p>கலந்துரையாடல் மற்றும் பங்கேற்றல்</p> <p>கலந்துரையாடல் மற்றும் பங்கேற்றல்</p>	<p>கணிணி மூலம் கற்பித்தல்</p> <p>கணிணி மூலம் கற்பித்தல்</p>	
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	<p>சுகபிரசவத்தில்</p> <ul style="list-style-type: none"> <li>பிறந்த ½ மணி நேரத்திற்குள் பால் குடிக்க வைக்க வேண்டும்.</li> </ul> <p>சிசேரியன்</p> <ul style="list-style-type: none"> <li>பிறந்தவுடன் 4 மணி நேரத்திற்குள் பால் குடிக்க வைக்க வேண்டும்.</li> <li>தேன், சர்க்கரை மற்றும் வேறு நீரை குழந்தைக்கு கொடுக்க கூடாது.</li> <li>சீம்பால் முதல் மூன்று நாட்களில் வரும் பாலை கண்டிப்பாக வீணாக்காமல் கொடுக்க வேண்டும். அவ்வாறு கொடுப்பதன் மூலம், குழந்தைக்கு தேவையான புரதம், கலோரி மற்றும் இதர சத்துக்களும், எதிர்ப்பு சத்துக்களும் கிடைக்கும்.</li> <li>தாய்ப்பாலை தவிர மற்ற செயற்கைபாலை கொடுத்தால், குழந்தை தாய்ப்பாலை குடிக்க மறுத்துவிடும்.</li> <li>பிறப்பு முதல் 6 மாதம் வரை முற்றிலும்மான தாய்ப்பாலை கொடுக்க வேண்டும்.</li> <li>6 மாதம் வரை வெறும் தாய்ப்பாலை மட்டும் குடிப்பதன் மூலம் குழந்தையின் எடைகூடும்.</li> <li>குழந்தை திருப்தி அடையும் வரை மார்பை சப்பவிட வேண்டும். அப்படி திருப்தி அடைவதற்கு 15 - 20 நிமிடம் ஆகும். 2-3 மணிநேரம் இடைவேலையில் இப்படி கொடுக்க வேண்டும்.</li> </ul>	<p>விளக்கவுரை</p> <p>செயல்முறை</p>	<p>கலந்துரையாடல் மற்றும் பங்கேற்றல்</p> <p>கண்டறிதல்</p>	<p>கணிணி மூலம் கற்பித்தல்</p> <p>செயல்பாடு மூலம் அறிதல்</p>	
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	<ul style="list-style-type: none"> <li>• ஒரு மாப்பிலிருந்து குழந்தையை மாற்றி போடும் முன் அம்மாப்பில்லுள்ள பாலை சுத்தமாக சப்பியிருக்க வேண்டும்.</li> <li>• திருப்தியாக குழந்தை பால் குடித்தால் ஒரு நாளைக்கு 30gms வரை குழந்தையின் எடை கூடும்.</li> <li>• பால் குடித்த பிறகு குழந்தையை தோளில் போட்டு குழந்தையின் முதுகை தட்டிக் கொடுக்க வேண்டும்.</li> <li>• தாய்ப்பால் கொடுக்கும் போது, தாய்மார்கள் அதிகபடியான நீர் ஆகாரம் மற்றும் சத்தமான உணவை எடுத்துக்கொள்ள வேண்டும். ஒரு நாளைக்கு 450Kcal வரை உட்கொள்ள வேண்டும்.</li> </ul> <p>தேவைக்கேற்ப பால் குடித்தலை அறிதல்</p> <ul style="list-style-type: none"> <li>• வாரம் ஒரு முறை குழந்தையின் எடையை பார்த்தல்.</li> <li>• ஒரு நாளைக்கு 30gms அல்லது 90-140gms வரை எடையேறுதல் வேண்டும்.</li> <li>• எடை பார்க்க வசதியில்லாதவர்கள், கீழ்க்கானும் முறையை வைத்து குழந்தையின் உணவு எடுத்துக்கொள்ளும் முறையில் அறியலாம்.</li> <li>• அடிக்கடி சிறுநீர் கழித்தல் ( 6 – 7 முறை, ஒரு நாள்)</li> <li>• நன்றாக தூங்குதல் ( 2 -3 மணிவரை)</li> </ul>	<p>விளக்கவுரை</p> <p>விளக்கவுரை</p>	<p>கலந்துரையாடல் மற்றும் பங்கேற்றல்</p> <p>கலந்துரையாடல் மற்றும் பங்கேற்றல்</p>	<p>கணிணி மூலம் கற்பித்தல்</p> <p>கணிணி மூலம் கற்பித்தல்</p>	
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	<p>கிருமி பரவுவதை தடுத்தல்</p> <ul style="list-style-type: none"> <li>• எடை குறைவுள்ள குழந்தைகளை கிருமிகள் எளிதில் தாக்கும்.</li> <li>• பெற்றோர்கள் மற்றும் உறவினர்கள் கையாளும் முறை.</li> <li>• குழந்தையின் சுற்றுப்புறம்.</li> <li>• வயிற்றுப்போக்கு, சுவாச நோய் மற்றும் வேறு நோய்கள் உள்ளவர்கள் குழந்தையிடமிருந்து தள்ளி நிற்க வேண்டும்.</li> <li>• குழந்தையை தொடும் முன் கை, கால்களை கழுவ வேண்டும்.</li> <li>• தொடும் முன் கைகளை வெதுவெதுப்பாக வைத்தல் வேண்டும்.</li> <li>• அதிக விரிந்தினர்களை தவிர்த்தல் வேண்டும்.</li> <li>• துணிகளை துவைப்பதற்கு முன் கிருமிநாசினியில் (Dettol) 2 மணி நேரத்திற்கு முன்பாகவே ஊறவைக்க வேண்டும்.</li> <li>• துவைத்த துணிகளை வெயிலில் காயவைக்க வேண்டும்.</li> <li>• தகுந்த நேரத்தில், முறையோடு தடுப்பூசிகளை போட வேண்டும்.</li> </ul> <p>தடுப்பூசி</p> <ul style="list-style-type: none"> <li>• தோல் ஊசி, போலியோ சொட்டு மருந்து மற்றும் மஞ்சள்காமாலை ஊசியை போட வேண்டும்.</li> </ul>	<p>விளக்கவுரை</p> <p>விளக்கவுரை</p> <p>விளக்கவுரை</p>	<p>கலந்துரையாடல் மற்றும் பங்கேற்றல்</p> <p>கலந்துரையாடல் மற்றும் பங்கேற்றல்</p> <p>கலந்துரையாடல் மற்றும் பங்கேற்றல்</p>	<p>கணிணி மூலம் கற்பித்தல்.</p> <p>கணிணி மூலம் கற்பித்தல்.</p> <p>கையேடு மூலம் விளக்கவுரை</p>	
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<p>எடைகுறைவால் ஏற்படும் பிரச்சனைகளை கண்டறிதல்.</p>	<p>5நிமி</p>	<ul style="list-style-type: none"> <li>• போலியோ சொட்டு மருந்தை முதல் 3 நாட்களுக்கு பிறகு கொடுக்க வேண்டும்.</li> <li>• தோல் ஊசி போட்ட இடத்தை நன்றாக கவனித்தல் வேண்டும். அந்த இடத்தில் சிறிய தலும்பு உள்ளதா என்பதை கவனிக்க வேண்டும். அவ்வாறு இருந்தால் தான் தோல் ஊசி அதன் வேலையை செய்கிறது என்று அர்த்தம்.</li> </ul> <p>எடைகுறைவால் ஏற்படும் முக்கிய பிரச்சனைகளுக்கான அறிகுறிகள்</p> <ul style="list-style-type: none"> <li>• வாந்தி</li> <li>• வயிற்று போக்கு</li> <li>• பால் குடிப்பதில் பிரச்சனை</li> <li>• அதிகமாக அழுகுதல்</li> <li>• சுவாச நோய்</li> <li>• வளிப்பு</li> <li>• பல்வேறு தொற்றுவியாதிகள்</li> </ul>	<p>விளக்கவுரை</p>	<p>கலந்துரையாடல் மற்றும் பங்கேற்றல்</p>	<p>கணிணி மூலம் கற்பித்தல்.</p>	<p>எடைகுறைவால் ஏற்படும் பிரச்சனைகளை கண்டறிதல்.</p>
<p>எடை குறைவுள்ள குழந்தைகளுக்கு ஏற்படும் பின்விளைவுகளை வரிசைப்படுத்துக.</p>	<p>5நிமி</p>	<p>பின்விளைவுகள்</p> <ul style="list-style-type: none"> <li>• சுவாச நோய்</li> <li>• முளையில் இரத்தம் கசிதல்</li> <li>• நுரையிரல் பிரச்சனை</li> <li>• பல்வேறு தொற்றுவியாதிகள்</li> </ul> <p>நன்றி</p>	<p>விளக்கவுரை</p>	<p>கலந்துரையாடல் மற்றும் பங்கேற்றல்</p>	<p>கணிணி மூலம் கற்பித்தல்.</p>	<p>எடை குறைவுள்ள குழந்தைகளுக்கு ஏற்படும் பின்விளைவுகளை வரிசைப்படுத்திக்காட்டுக.</p>

## **REQUISITION LETTER TO MEDICAL GUIDE**

From

Ms.P.Jeyanthi  
MS.c(N), II Year,  
Dr.G.Sakunthala College of Nursing,  
Trichy.

To

Dr.Krishnan, MD Paediatrics  
G.V.N. Speciality Hospital,  
Trichy.

Respected sir,

**Sub: Requesting permission for the guidance to conduct the study,  
regarding**

“A Pre-experimental study to evaluate the effectiveness of Information Education and Communication Package regarding care of low birth weight babies in terms of knowledge and expressed practice among mothers in Child Jesus Hospital, Trichy.

I am studying in Iyear,M.Sc(N) at Dr.G.Sakunthala college of nursing, Trichy. I would like to conduct a study as a partial fulfilment for the degree of M.Sc(N), The statement of the problem is

“A Pre-experimental study to evaluate the effectiveness of Information Education and Communication Package regarding care of low birth weight babies in terms of knowledge and expressed practice among mothers in Child Jesus Hospital, Trichy”.

I humbly request you to guide me and kindly give suggestions for conducting the study, I will be thankful sir.

Thanking you in anticipation

Place:

Yours sincerely

Date:

**(P.JEYANTHI)**

**LETTER SEEKING PERMISSION TO CONDUCT THE RESEARCH STUDY**

To

The Administrator,  
Child Jesus Hospital,  
Trichy-1

Respected Madam,

**Sub: Requesting permission to conduct study.**

This is to introduce Mrs.P.JEYANTHI, M.Sc(N) II year student of Dr.G. Sakunthala college of nursing, Trichy. She is to conduct a research project which is submitted to the Tamil Nadu Dr.M.G.R.Medical University, Chennai, as partial fulfilment of university requirement for the award of Master Degree in Nursing. Her topic:

“A Pre-experimental study to evaluate the effectiveness of Information Education and Communication Package regarding care of low birth weight babies in terms of knowledge and expressed practice among mothers in Child Jesus Hospital, Trichy”.

The student is interested in conducting her study among mothers on care of low birth weight babies in Child Jesus Hospital. I shall be obliged if you kindly grant permission for conducting her study in your esteemed institution.

Thanking you

Yours Sincerely  
**(PRINCIPAL)**

**APPENDIX-E**  
**IEC-PACKAGE**  
**TEACHING MODULE**

Topic	:	Care of low birth weight babies
Group	:	Mothers of low birth weight babies
Venue	:	Child Jesus Hospital
Time Duration	:	9.00 am to 4.00
Audio visual Aids	:	Power point, Hand outs, Demonstration, Lecture method
Method of teaching	:	Lecture cum Discussion

General Objective

The sample (mothers of low birth weight babies) will be able to acquire knowledge regarding care of low birth weight babies, and apply this knowledge in to their day today practice.

Specific Objective

- define low birth weight babies
- enumerate the causes of low birth weight baby
- enlist the special problems for low birth weight
- describe briefly about thermoregulation
- discuss about the care of low birth weight baby
- identify the signs and symptoms of serious problems
- list out the complications

S. No.	Specific Objective	Content	Teachers Activity	Learners Activity	Audio Visual Aids	Evaluation
1	define low birth weight babies.	<p><b>INTRODUCTION</b></p> <p>Low birth weight is a major determinant of malnutrition during infancy. These delicate babies are susceptible to infections and prone to physical and mental handicaps during their life. So they need specialized care to overcome the obstacles and it is responsibility of the mothers, family and community to help these newborn to adjust to their life.</p> <p><b>DEFINITION</b></p> <p>Any baby whose birth weight is less than 2500 is termed as low birth weight babies.</p> <p>(WHO)</p>	Explaining	Listening	Power point	What do you mean by low birth weight baby?
2	enumerate the causes of low birth weight baby.	<p><b>CAUSES</b></p> <ul style="list-style-type: none"> <li>• Maternal malnutrition.</li> <li>• Placental dysfunction.</li> <li>• Multiple pregnancies.</li> <li>• Intrauterine infections.</li> <li>• Influence of teratogens like drugs, radiation, etc.</li> <li>• Systemic diseases of the mother.</li> <li>• Genetic and chromosomal disorders.</li> <li>• Pregnancy induced hypertension.</li> </ul>	Explaining	Listening	Power point	What are the causes for low birth weight babies?



3	enlist the special problems for low birth weight.	<p><b>SPECIAL PROBLEMS OF LOW BIRTH WEIGHT BABIES</b></p> <ul style="list-style-type: none"> <li>• Respiratory distress</li> <li>• Feeding difficulties</li> <li>• Aspiration</li> <li>• Hypoglycaemia</li> <li>• Hypothermia</li> <li>• Infections</li> <li>• Developmental retardation</li> <li>• High morbidity and mortality</li> </ul>	Explaining	Listening	Power point	Tell me about the special problems for low birth weight babies.
4	describe briefly about thermoregulation .	<p><b>THERMOREGULATION</b></p> <p>Maintaining fluid and heat balance is of vital importance to the low birth weight babies. At birth the baby is exposed to a cold dry environment putting neonates in risk of dehydration and hypothermia.</p> <p>Low birth weight babies have a high rate of water heat loss because of their immature skin.</p> <p>Four mechanisms create heat loss</p> <ul style="list-style-type: none"> <li>• Radiation</li> <li>• Convection</li> <li>• Conduction</li> <li>• Evaporation</li> </ul> <p><b>RADIATION</b></p> <p>Radiant heat loss is described as the net rate of heat loss in the form of electromagnetic waves between the body and surfaces not in contact with the body.</p>	Describing	Listening	Power point	Explain me about thermoregulation
			Describing	Listening	Power point	

		<p>Eg: weight machine, or other cot without the cotton bedsheets.</p> <p>These type of heat loss depends on a number of factors, including the temperature of the skin, the relative surface area of the infant and distance to windows.</p> <p><b>EVAPORATION</b></p> <p>Total heat transfer by energy carrying water molecules from the infant's skin and exhaled respirations to a drier environment. Low birth weight babies skin (immature) differs to that of a term infant for the first 2 weeks of life therefore baby is more prone to this type of heat loss.</p> <p><b>CONVECTION</b></p> <p>Is the transfer of thermal energy from the molecules of the body to the molecules of an adjacent gas. Heated gas expands and is displaced towards by the force of gravity of the cooler and denser surrounding gas. The gas movement is called free convection.</p> <p>Eg: Cool air currents in a nursery.</p> <p><b>CONDUCTION</b></p> <p>Is transfer of energy from the molecules of a body to the molecules of solid object to contact with that boby.</p> <p>Eg: A baby lying on a cold mattress.</p>	Describing	Listening	Power point	Explain me about thermoregulation
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5	discuss about the care of low birth weight baby.	<p><b>CARE OF LOW BIRTH WEIGHT BABIES</b></p> <p><b>TEMPERATURE CONTROL</b></p> <p>Hypothermia is one of the major complication among low birth weight babies, which needs to be prevented. The low birth weight babies has decreased subcutaneous fat insulation and therefore can lose body heat more rapidly. It has decreased brown fat and low glucose stores in the liver both of which contribute to decrease temperature.</p> <p><b>MAINTAINENCE OF BODY TEMPERATURE</b></p> <ul style="list-style-type: none"> <li>• The body temperature in babies is usually unstable and they are particularly vulnerable to develop hypothermia in winter.</li> <li>• The baby bath should not be given at birth and delayed till the baby's temperature is stabilized.</li> <li>• Child should be kept dried and adequately clothed.</li> <li>• The baby should be nursed in close proximity to the mother so that the baby gains heat from maternal warmth. In winter the linen and clothes of the baby should be warmed. Baby should be provided with a cap, socks and mittens.</li> <li>• Room should be kept warm by fixing, a heated lamp with a 200walts bulb placed about 18" away from the baby. It can provide additional warmth to the baby.</li> </ul>	Describing	Listening	Power point	Explain me regarding care of low birth weight babies.
			Describing	Listening	Power point	

	<ul style="list-style-type: none"> <li>The cultural practice of keeping the mother baby isolated for 40 days is useful and need to be promoted, it prevents exposure of baby to cold.</li> </ul> <p><b>MONITERING TEMPERATURE</b></p> <ul style="list-style-type: none"> <li>The mother should be trained to assess the temperature of the body by touch alone. The trunk should feel warmer than the perceiving hand.</li> <li>The presence of warm and pink extremities reassuring that baby is not having any cold stress.</li> <li>The blue sole suggests hypothermia or early sickness in the baby.</li> <li>The cold sole indicates the need to rewarm the infant.</li> </ul> <p><b>SKIN CARE AND BABY BATH</b></p> <ul style="list-style-type: none"> <li>During summer months, the baby can be given a bath. The room should be reasonably warm and free of any draught.</li> <li>Take clean warm water in a plastic basin, avoid dip baths till the cord falls. Use any unmedicated soap. The baby should be held over the forearms or over the thighs, bath by wetting and applying soap to small areas beginning from head and proceeding downwards to prevent exposure.</li> </ul>	Describing	Listening	Power point	
		Explaining	Listening	Power point	

		<ul style="list-style-type: none"> <li>• Eyes should be cleaned by using one sterile water soaked swab for each eye.</li> <li>• The bottom should be washed in the end to avoid contamination of healthy areas of skin.</li> <li>• The infant should be promptly dried with a soft towel to prevent damage to the delicate skin of the baby.</li> <li>• No vigorous attempts should be made to rub off the vernix caseosa which provides protection to the skin.</li> <li>• During winter months the baby should preferably be sponged rather than bathed to avoid risk of exposure.</li> <li>• The talcum powder should be taken on the fingers or cotton ball and applied over the axillae and groins taking care that it is not sprinkled over the eyes and nostrils.</li> <li>• After bath the baby should be given a breast feed, most babies go to sleep after ritual of a bath and breastfeed.</li> <li>• They wake up after 2-3 hrs fully refreshed and ready for the next feed.</li> </ul>	Explaining	Listening	Power point	
		<p><b>CARE OF THE EYES</b></p> <ul style="list-style-type: none"> <li>• Eyes should be cleaned daily with sterile cotton swab for each eye.</li> <li>• Prophylactic instillation of human colostrums in to the eyes has been shown to reduce the incidence of sticky eyes.</li> </ul>	Explaining	Listening	Power point	

	<ul style="list-style-type: none"> <li>The practice of applying kajal in the eyes is not, recommended because it may transmit infection like trachoma and may even cause lead poisoning.</li> </ul> <p>DRESSES FOR THE BABY</p> <ul style="list-style-type: none"> <li>Clothes should be loose, soft and preferably made of cotton.</li> <li>They should be open on the front or back for ease of wearing, avoid use of large buttons which may hurt the tender skin of the baby.</li> <li>The nappies should be made of thick, soft and absorbent material in order to readily soak the urine and stools. Plastic napkins should be avoided to prevent nappy rash.</li> <li>Woollen clothes should not be stored and preserved with naphthalin balls, because there is a potential risk of development of severe jaundice. Apart from this protecting the woollens by using naphthelin balls they should be exposed to bright sunlight for one to two days before being worn.</li> </ul> <p>PROVIDE IN UTERO MILIEU</p> <ul style="list-style-type: none"> <li>Uterus provides ideal ambient conditions to the baby. All attempts should be made to create uterus-like baby friendly ecology in the nursery.</li> <li>Create a soft, comfortable “nested” and cushioned bed.</li> </ul>	Explaining	Listening	Power point	
		Explaining	Listening	Power point	

		<ul style="list-style-type: none"> <li>• Avoid excessive light, excessive sound, rough handling and painful procedures, provide warmth.</li> <li>• Prevent evaporative skin loss by effectively covering the baby, application of oil or liquid paraffin to the skin and increasing humidity to near 100%.</li> <li>• Covering the head of baby is very important.</li> </ul> <p><b>THERMAL COMFORT</b></p> <ul style="list-style-type: none"> <li>• Application of oil or liquid paraffin on the skin reduces conductive heat loss and evaporative water lossess.</li> <li>• Practice kangaroo mother care</li> <li>• Kangaroo care is a technique practiced on newborn usually on low birth weight babies were the infant is held, skin to skin contact on adult.</li> <li>• KMC seeks to provide restored closeness of the newborn with mother or father by placing the infant in direct skin to skin contact with one of them. This ensure physiological psychological warmth bonding. The kangaroo position provides ready access to nourishment. The parents stable body temperature helps to regulate the neonates temperature more smoothly, and allows for readily accessible breastfeeding.</li> <li>• Kangaroo care arguably offers most benefits for preterm and LBW babies, who experience more normalized temperature heart rate, and</li> </ul>	Explaining	Listening	Power point	
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6	identify the signs and symptoms of serious problems.	<p>respiratory rate, increased weight gain, fewer nasocomial infections and reduced incidence of respiratory tract diseases.</p> <ul style="list-style-type: none"> <li>• Additionally KMC improves cognitive development, decreased stress levels, reduced pain responses, normalized growth and positive affects on motor development.</li> <li>• Also helps to improve sleep patterns of infants and a good intervention of colic. <ul style="list-style-type: none"> <li>➤ Promotes frequent breast feedings.</li> <li>➤ Enhance mother infant bonding.</li> <li>➤ Reduces hospital stay.</li> <li>➤ Reduces mortality and morbidity rate.</li> </ul> </li> <li>• Using breast feeding technique improve breast feed.</li> <li>• Immunize the baby properly at correct time following the immunization shedule.</li> </ul> <p><b>SIGNS AND SYMPTOMS OF SERIOUS PROBLEMS</b></p> <ul style="list-style-type: none"> <li>• Vomiting or diarrhea.</li> <li>• Poor feeding.</li> <li>• Undue lethargy or excessive crying.</li> <li>• Excessive frothiness or drooling choking at feeds.</li> <li>• Respiratory difficult, apneic attacks cyanosis.</li> <li>• Seizures.</li> <li>• Sudden rise or fall in the temperature.</li> <li>• Evidence of superficial infection (conjunctivities, pustules).</li> </ul>	<p>Demonstrating</p> <p>Enlisting</p> <p>Enlisting</p>	<p>Observing</p> <p>Listening</p> <p>Listening</p>	<p>Demonstration</p> <p>Hand outs</p> <p>Power point</p>	<p>What are the signs and symptoms of serious problems of low birth weight babies?</p>
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7	List out the complications of low birth weight babies.	<p>COMPLICATIONS</p> <ul style="list-style-type: none"> <li>• Respiratory distress syndrome.</li> <li>• Moderate bleeding in brain.</li> <li>• Chronic lung disease.</li> <li>• Necrotizing enterocolitis.</li> <li>• General infection.</li> <li>• Meconium aspiration syndrome.</li> </ul>	Listing	Listening	Power point	Tell me about the complications of low birth weight babies.
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