EFFECTIVENESS OF INFORMATION EDUCATION COMMUNICATION PACKAGE ON KNOWLEDGE REGARDING HOME CARE MANAGEMENT OF HIGH RISK NEWBORN AMONG MOTHERS

Dissertation Submitted To

THE TAMILNADU DR.M.G.R. MEDICAL UNIVERSITY

CHENNAI

IN PARTIAL FULFILMENT OF REQUIREMENT FOR THE AWARD OF

DEGREE OF

MASTER OF SCIENCE IN NURSING

APRIL 2012.

A STUDY TO ASSESS THE EFFECTIVENESS OF INFORMATION EDUCATION COMMUNICATION PACKAGE ON KNOWLEDGE REGARDING HOME CARE MANAGEMENT OF HIGH RISK NEWBORN AMONG MOTHERS IN DR. MEHTA'S HOSPITALS AT CHETPET, CHENNAI

2011 – 2012.

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ABSTRACT

The health of the baby must be guarded from the time of conception. Every birth must be considered as a medical emergency. Neonatal morbidity and mortality is directly related to the birth weight and gestational maturity of the newborn. There is no indicator in human biology which tells us so much about the past events and future trajectory of life as the weight of infant at birth.

The study was conducted to assess the effectiveness of information education communication package on knowledge regarding home care management of high risk newborn among mothers. The hypothesis formulated was that there was no significant relationship between the information education communication package and the level of the knowledge regarding home care management of high risk newborn among mothers. The review of literature had included the studies which provides a strong foundation for the study including the basis for conceptual framework and the formation of tool.

The research design used in this study was pre experimental one group pre test post test design. It was carried out with 50 samples who fulfilled the inclusion criteria. Purposive sampling technique was used to select the samples. A self administered tool was given to the mothers to assess the pre test level of knowledge. Information education communication package was given to the mothers for a period of 30 minutes. The post test was assessed after three days by using the same tool.

The analysis revealed that the pre test mean score was 11.42 with the standard deviation of 2.14 and the post test mean score was 24.67 and with the standard deviation of 2.22 and the students paired “t’ test value was 27.20 which showed as significant at $p \leq 0.001$ level. Thus the analysis revealed that there was an increase in post test level of knowledge, and also it indicates the effectiveness of information education communication package on knowledge regarding home care management of high risk newborn among mothers. So null hypothesis was rejected and research hypothesis was accepted for this study.

LIST OF APPENDICES

CHAPTER I

INTRODUCTION

Every family looks forward to the birth of a healthy new born. It is an exciting time with so much to enjoy. In some cases, though unexpected difficulties and challenges occur along the way. Some newborn are considered as high risk that means a newborn has a greater chance of developing complications due to problems during foetal development, pregnancy and during birth.

Nearly 5 million neonate worldwide die each year, 96% of them in developing countries. Neonatal mortality rate per 1000 live births varies from 5 in developed countries to 53 in the least developed countries. Immunisation, oral rehydration, and control of acute respiratory Infections have reduced the post-neonatal component of the infant mortality rate. Hence, neonatal mortality now constitutes 61% of infant mortality and nearly half of child mortality in developing countries. Further substantial reduction in infant mortality and neonatal mortality in developing countries must be achieved. About 63% of neonates in developing countries and 83% in rural India are born at home. Standard advice is to admit every ill neonate to hospital, but hospitals with facilities for neonatal care are inaccessible for rural populations.

The risk for hospital-acquired morbidity may be reduced however the overriding concern is that infants may be placed at risk for increased mortality and morbidity related to discharge before physiologic stability is established. Multiple investigators have found that preterm low birth weight infants who required neonatal intensive care experience a much higher rate of hospital readmission and death during the first year after birth compared with appropriate for gestational age and healthy term infants. Parents need to be instructed regarding safety precautions and observations.

Adequate time for preparation of the family to provide care in a home setting and for mobilization of community resources to provide support services is necessary before discharge. With advances in neonatal intensive care and changes in the economic and societal forces, the complexity of post-hospital care issues has increased

The estimated cost of hospital based neonatal care in India is very high. Hence to reduce neonatal mortality, there are many ways to provide neonatal care at home. The main causes of neonatal death are prematurity, birth asphyxia or injury, and infections. Efforts to reduce neonatal mortality by management of birth asphyxia, pre-term births, and low birth weight babies had varied success but septicaemia have not been addressed. The care of premature infants is a rapidly growing public health concern in india , with over 57,000 infants born every year with a birth weight under 1500 grams. Although there is more recent advances in neonatal care the care givers of high risk infants are eager in getting discharge from hospital due to their personal reasons.

This results in a poor home based management of high risk babies leading to increased infant mortality rate. For those few outcomes that have been studied, data suggest, that there are racial disparities in the care received by premature infants after discharge. Although racial disparities in health care have been widely described for over twenty years, the root cause for such racial disparities in health care are only beginning to be understood. Many of these factors are aspects of the doctor-parent relationship such as communication styles expectations and trust.

NEED FOR STUDY

Globally it is estimated that 17% of live born infant are pre term. In developed countries the infant mortality rate is 10 per 1000 live births, and in developing countries it is 69 per 1000 live births. Neonatal death rate in developed countries is 2% and in developing countries is 70%. In south Asia 32%, in India 33% of live birth are preterm and low birth weight babies.

Ashok .k. dutta, (2006) said that every year four million newborn deaths occur in the world,out of which nearly one-fourth are contributed by India. Approximately 98% of this neonatal mortality takes place in developing countries of the world. The primary causes of neonatal mortality are believed to be complications of prematurity (21%) birth asphyxia and injury(23%)neonatal tetanus(7%)congenital anomalies (7%) and diarrhoea (3%) with low birth weight contributing to a large proportion of deaths.

Every newborn requires basic care which has to be provided by the mother at home. This includes warmth, feeding, basic hygiene and identification of danger signs, and seeking help from health personnel whenever required. Therefore all newborns get home based newborn care as per the perception and socio cultural behaviour of the society. However it has been observed by various studies on the newborn care in the communities that the knowledge and the practice of simple care *e.g.* prevention of hypothermia, feeding of colostrum and exclusive breastfeeding are lacking. The knowledge regarding identification of danger signs and care seeking behaviour of the families has been found to be a variable and in general it is poor.

The mortality rate of various countries are 80.87 in Pakistan, 34.61 in India, 19.63 in Mexico and 16.62 in Malaysia. UNICEF (2009) reported that infant born in developing nations have 14 fold higher chance of death during their first month of birth compared to a new born in developed countries. The investigator during her posting of neonatal intensive care unit handled so many high risk newborn.The mothers of high risk new born did not have adequate knowledge, and did not know how to take care of their baby. It is not only among with primi gravid mothers but with multi gravid mothers are having inadequate knowledge. Thus it leads to readmission of new born in neonatal intensive care unit. So the investigator felt the need of teaching about the Home Care Management of high risk new born.

High risk newborn child's parent are excited to take their baby home after days or weeks in the neonatal intensive care unit , it may cause some anxiety to parents. When a baby is ready for discharge depends on many factors. Each baby must be individually evaluated for readiness and the family must be prepared to provide any special care for the baby.

STATEMENT OF THE PROBLEM

A study to assess the effectiveness of information education communication package on knowledge regarding Home Care Management of high risk newborn among mothers in Dr.Mehta's hospitals at chetpet, Chennai.

OBJECTIVES

1. To assess the pre test level of knowledge regarding Home Care Management of high risk new born among mothers.

2. To assess the post test level of knowledge regarding Home Care Management of high risk new born among mothers.

3. To determine the effectiveness of Information Education Communication package on knowledge regarding Home Care Management of high risk new born among mothers.

4. To associate the pre test and post test level of knowledge regarding Home Care Management of high risk newborn among mothers with their selected demographic variables.

OPERATIONAL DEFINITIONS

Effectiveness: Refers to the extent to which the teaching program had brought about the result, measured in terms of knowledge.

Information Education Communication: Refers to the systematically developed information designed to teach the mothers of high risk new born by using audio visual aids like video clips and booklets.

Knowledge: Refers to information of home care management of high risk newborn among mothers regarding general information, thermoregulation, nutrition, hygienic measures, therapeutic positioning, immunization and preventive measures.

High risk newborn: Refers to babies born between 30 to 37 weeks of gestation and with the Small for gestation , Preterm, Intrauterine growth retardation and low birth weight.

Mothers: Refers to mothers who delivered high risk babies.

HYPOTHESIS

There is no significant relationship between the information education communication package and level of knowledge regarding homecare management of high risk newborn among mothers.

DELIMITATIONS

- The study was delimited to only one institution.
- The study was delimited to period of 4 weeks.
- The study was delimited to 50 samples.

CHAPTER II

REVIEW OF LITERATURE

Review of Literature refers to an extensive exhaustive and systematic examination of publication relevant to the research project.

This chapter deals with review of literature related to the problem statement it has helped the researches to understand the impact of problem under study. It has also enabled the researcher to design the study to develop the tool and plan for data collection procedure and analyze the data.

PART- I REVIEW OF RELATED LITERATURE

Neonatal mortality accounted for 60 to 65% of infant deaths in many developing countries, including India. The most important causes of neonatal deaths were preterm births or low birth weight, birth injury and asphyxia and bacterial infections of neonates. The measures to improve birth weight were generally not successful because many of the determinants were beyond the scope of the health-care system

The literature found relevant and classified in the following manner.

- Literature related to general information about the home care management of high risk new born.
- Literature related to thermoregulation.
- Literature related to nutrition.
- Literature related to hygienic measures.
- Literature related to therapeutic positioning.
- Literature related to immunization & preventive measures.

PART- II CONCEPTUAL FRAMEWORK

PART- I

REVIEW OF RELATED LITERATURE

The high- risk neonate can be defined as a new born, regardless of gestational age or birth weight who 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 extra uterine existence. The high –risk period encompasses human growth and development from the time of viability up to 28 days after birth and includes threats to life and health that occur during the prenatal, Perinatal, and postnatal periods.

Prevention of heat loss in the distressed infants is absolutely essential for survival and maintaining a neutral thermal environment is challenging aspects of neonatal care. Thermoregulation means maintenance of warmth of neonates

Hypothermal means decreased optimal temperature of the neonates. The neonates should be provided by adequate appropriate clothing. cold stress or hypothermia will be identified by hands, feet and abdomen are cold while touching the neonates

Beginning kangaroo care within the first 2 hours after birth seems to be the most effective time period for successful breastfeeding. Many advocates of natural birth encourage immediate skin-to-skin contact between mother and baby after birth, with minimal disruption. Babies must be kept warm and dry. This method can be used continuously around the clock or for short periods per day gradually increasing as tolerated for infants who are compromised by severe health problems. It can be started at birth or within hours, days, or weeks after birth. Proponents of kangaroo care encourage maintaining skin-to-skin contact method for about six weeks so that both baby and mother are established in breastfeeding and have achieved physiological recovery from the birth process.

Literature related to general information

Dokfulam, et al.,(2004), conducted a study to assess effectiveness of hand hygiene practices in neonatal intensive care unit towards nasocomial infection among 1000 health care workers. The observational method was used in this study regarding patient contacts, hand washing techniques. The results showed due to effective hand hygiene the associated infection was decreased for 11 - 6 % the study concluded that hand hygiene of health care workers in Intensive care unit leads to decreased nasocomial infection in new born babies.

Barnes, et al.,(2001) conducted a study to evaluate the resources, education and care in the home program for infant mortality reduction among 666 community health nurses in the inner city of Chicago. The result showed that due to continuous program of the infant, death rate was reduced when compare to that of previous rate. The study concluded that using community workers as a home visiting team will help to meet the needs of families and high risk newborns.

Brooken D, et al.,(1996) examined the mean nursing time spent providing discharge planning and home care to 61 mothers were selected randomly in western reserve university Cleveland, USA. Discharge planning, home visits teaching was given. This study shows that community health nurse program was very effective compare to previous program more than half of the women required more than two home visits to meeting the high risk education programme.

Graham A.V, et al.,(1992) conducted a study on effectiveness of home based intervention for prevention of low birth weight with low income black women attending a prenatal clinic in Cleveland. The investigator selected 154 high risk women and given education about drug and nutrition, smoking. The results shows there was no decrease in the rate of low birth weight for who received for home visits to home visits focusing on smoking, drug and nutrition education compared to women who receive no visits, so they concluded question the utility of shorter psychosocial interventions for influencing low birth weight rates in low-income black clinic populations.

Dorothy Brooten, (1986) determine the safety efficacy and cost savings of early hospital discharge of very low birth infants. The investigators selected 79 infants and divided randomly into 40 samples control groups, 30 samples experimental group. The investigator given instructions, counseling, home visit, daily on call and availability of hospital based nursing care. This study shows that early discharged group having 200 gram less weight . Finally they concluded adequate hospitalization is needed for appropriated child growth.

Literature related to thermoregulation

Robin L, et al.,(2010) conducted a study on comparison of different methods of temperature measurement in risk new born. The investigator selected 663 newborns. A prospective, retrospective descriptive and comparative study was used. found different types of thermometer readings were performed. The results showed that digital axillary thermometer most closely correlated. There were not any clinical differences between both auxiliary and infrared tympanic thermometers. They study suggests that both auxiliary and infrared tympanic thermometers measurement and could be used as an acceptable and practical method for risk newborn in neonatal units.

M.D.Gy.Mestyan F. varga, et al.,(2009) done a study on level of O_2 consumption of premature newborn cooler environment and incubator. The investigator selected preterm and term babies with 1-10 days of ages. Continuous recording of O_2 consumption and rectal temperature are measured. The results showed clearly that in an environment temperature was Cooler than the usual nursery or incubator temperature. So the O_2 consumption is always associated with more or less muscular intense activity. So they suggested that initial and subsequent stabilization of new born body temperature is very essential for maintaining normal oxygen level.

Knobel, et al.,(2006) conducted a study on thermoregulation and heat loss prevention among newborns. The investigator selected 33,000 selected extremely low birth weight infants and preterm infants in US hospitals. The observation data was used in this study. The results shows extremely low birth weight infants temperatures was decreased with care giver procedures.

Chia, et al., (2005) done a study to measure temperature during a study of mothers and infants who were having breastfeeding difficulties during early postpartum and were given opportunities to experience skin-to-skin contact during breastfeeding. Forty-eight full-term infants were investigated using a pretest-test-posttest study design. Temporal artery temperature was measured before, after, and once during 3 consecutive skin-to-skin breastfeeding interventions and 1 intervention 24 hours after the first intervention. The result showed that most infants reached and maintained temperatures between 36.5 and 37.6 C, the thermo neutral range with only rare exceptions.

Literature related to Nutrition

Rahmah M. Amin, et al.,(2011) conducted a study on work related determinants of breast feeding discontinuation among employed mothers. The investigator selected 290 women with 2 months to 12 months children in Malaysia. Cross sectional study was used to assess factors that contribute to discontinuing breast feeding. A structured questionnaire was used in this study. The results showed that 5% of mothers discontinued breast feeding. The majority 54% of mothers discontinued breast feeding less than three months. So they concluded that not having adequate breast feeding facilities at the work place was also a risk factors for discontinuation of breast feed. So they suggested to provide adequate breast feeding facilities at the work place such as room, flexible time to express breast milk and provide refrigerator to keep express breast milk.

Larry Gray et al., (2009) determine the breast feeding is analgesic in new born infants undergoing routine hospital painful procedures. The investigator selected 30 full term breast fed infants and divided into experimental and controlled group. A prospective randomized controlled trial was used in this study. The study shows that 91% infants were reduced crying and grimacing. This study concluded that breast feeding is potent analgesic intervention in new born during painful procedures.

Mridula Bandyopadhyay et al., (2009) conducted both qualitative and quantitative study on impact of ritual pollution on lactation and breast feeding practices in rural west Bengal. A survey questionnaire was administered to 402

respondents and in depth interviews were conducted with 30 women in the reproductive age group 13 – 49 years, and 12 case studies were documented with women belonging to different caste, religious and tribal groups. The study results showed that initiation of breast feeding was delayed after birth because of the belief that mother's milk is not ready until two to three days of postpartum.

Madhu. K, et al., (2008) Conducted study on effectiveness of breast feeding in reducing mortality and morbidity. The study was conducted with new born who came to Primary Health Centre in Kengeri, Bangalore. The data was collected in using pre test questionnaire on breast feeding and new born practices. This study shows that 97% of mothers initiated breast fed, 19% used pre lacteal feeds. They suggested need for breast feeding intervention program especially for antenatal and postnatal checkups.

Manju George, et al., (2008) investigated the development of high risk newborns. A follow-up study from birth to one year. The investigator selected 55 high risk newborns till one year in Thiruvalla. They investigator was used prospective study. Risk factors of study population were classified prenatal, natal, postnatal factors. They assessed muscle tone, vision and hearing. The results shows that 20 babies had developmental delay to had global delay 25 babies already delay with more than 2 risk factors. So they concluded a study on premature babies can and should breast feed.

Siranda Torvaldsen, et al., (2006) conducted a study on effectiveness of Intrapartum epidural analgesia and breastfeeding. In this study the investigator selected 1280 women who gave birth a single live infant. The study was done in Australian capital territory. A prospective cohort study was used. Breast feeding information was collected in surveys and questionnaire were given. The study results 43% of women were either fully or partially breast feeding their baby and 60% were continuing to breast feed for 24 weeks. The study concluded that Intrapartum analgesia and type of birth were associated with partial breast feeding.

A.M.M. Sonnen schein – Vandervoort, et al., done a population based prospective cohort study on duration and exclusiveness of breast feeding and childhood asthma related symptoms among 5,368 children information on breast feeding duration exclusiveness and asthma related symptoms, including wheezing, shortness of breath, dry cough was obtained by questionnaires. The study showed that compared to children who were breast fed for 6 months, those who were breasted had overall increased risks of wheezing, shortness of breath during the first four years. Shorter duration and non exclusively of breast feeding were associated with increased risks of asthma related symptoms in pre school children.

Literature related to position

Penny Fstastny, et al.,(2010) conducted a study about position of infant to reduce sudden infant death syndrome risk. The investigator selected hospital nursery staff 96 and mothers of new born 579 at perinatal hospital in Orange country in California. A cross sectional survey method is used. This study identified 72% identified supine position is the most lowers sudden infant syndrome risk 30% reported sleep infant position,9% supine position avoidance for aspiration. 34% staff, 36% mothers advising exclusive supine position. This study shows exclusive supine position is under used by both nursery staff and mothers of new born infants.

Padua, et al.,(2009) conducted a study to increase the gastric volume of premature infants. The investigators selected 16 new borns with gestational age from 31-32 weeks. A randomized cross over trial was used in this study different position was used for each feeding. This study shows that response variables like respiratory effects, cardiac frequencies and saturation, drawing of intercostals were measured at interval of two minutes during, five minutes after the gavage feeding. The result of the positioning shows that left lateral and supine positions have higher respiratory frequency and right lateral and prone positions have influence on the cardio respiratory effect, left lateral and supine position presented higher effect to increase the gastric volume.

Literature related to Hygienic measures

Howard L. Sobel, et al.,(2011) conducted a study on effectiveness of immediate measures of newborn top avoid neonatal sepsis. The investigator observed consecutive deliveries in 51 hospital using standardized tool to record practices and timing of immediate new born care procedures. The results shows drying, weighing performed in more than 90% of newborn of 6% were allowed to skin to skin contact, delayed drying 9.65% early bathing 90% while 68.2% put to the breast. They were prepared two minutes earlier.5.7% developed sepsis and pneumonia so they concluded that performance and timing of immediate newborn care interventions are below world health organisations standards and deprive newborns of basic protections against infection and death.

Pichegnsathian, et al.,(2008) conducted a study on impact of promotion programme on hand hygiene practices in neonatal intensive care unit . 26 nursing personal were selected in university hospital, Thailand. Quasi experimental research design was used for the study. Hand hygiene promotion programme, compliance with hand hygiene among nursing personal. Results indicated 81% of nursing personal agreed that hand hygiene programme motivated them to practice better hand hygiene. This study showed that multiple approaches and persistence, encouragement need sustained high level of appropriate hand hygiene practices.

Holt J.skifte TB, Koch A., (2004) conducted a study to determine hygienic habits and precautions taken in day-care centre's in Greenland. The investigator selected totally 33day care centre's in town. The questionnaire method was used in this study. The study showed that 1/3 of care takers don't wash hands after wiping the child. Paper towel where only available in 23 day care centre. They concluded day care centre did not follow hygienic measures. Hygienic education of care givers is necessary and should be strengthened.

All the above literature showed that the level of knowledge among mothers of high risk newborn were unaware of home care management so information education communication is leaded to improve the home care management of high risk new born among mothers.

PART-II

CONCEPTUAL FRAMEWORK

Imogene king goal attainment theory describes a situation in which two people, usually strangers come together in a health care setting to help or be helpful to maintain a state of health. The theory is based on the concepts of the personal and interpersonal systems including interaction, perception, transaction and action.

Perception

Perception is the person's representation of the reality. It influences all other behaviour of a person and it is more subjective and unique to each person. The researcher perceives that mothers of high risk new born have lack of knowledge regarding home care management and also considers that they are anxious due to lack of knowledge about home care management of high risk new born.

Judgement

The judgement is a decision made by the researcher and the mothers of high risk new born. Here the researcher judges that the mothers of high risk new born have lack of knowledge regarding home care management and also mothers seek help from internal and external resources to attain maximum knowledge on home care management of high risk newborn.

Action

This refers to the changes that have to be achieved. The researcher's action is to provide a Information Education Communication package on knowledge regarding home care management of high risk newborn and the mothers are eager to listen and understand the home care management of high risk newborn.

Mutual goal setting

Here the researcher plans to educate about the home care management of high risk newborn among mothers, that they are actively involving in this Information Education Communication package on home care management of high risk newborn.

Reaction

Reaction means decision to act. In this study the researcher developed a tool to assess the existing level knowledge on home care management of high risk newborn among mothers who are in hospital.

Interaction

Interaction is a process of perception and communication between person and environment and between person and person, represented by verbal and non- verbal behaviours that are goal directed, here the researcher gave a information education communication package under six components as below.

- General information.
- Thermoregulation.
- Nutrition.
- Hygienic measures.
- Therapeutic positioning.
- Immunization and preventive measures.

Transaction

The transaction is purposeful interaction that leads to goal attainment between the researcher and the mothers of high risk newborn. Here the researcher assess the effectiveness of Information Education Communication package on knowledge regarding home care management of high risk newborn by Post test using the same tool.

Positive outcome is attainment of adequate knowledge regarding home care management of high risk newborn which has to be further enhanced. Negative outcome is moderate and inadequate knowledge on home care management of high risk newborn, which needs to be reassessed for further learning.

CHAPTER III

METHODOLOGY

Research methodology is a systematic procedure in which the research starts from initial identification of the problems to find conclusions (Kothari c.r.2003). The methodology of research indicates the general pattern of organising the procedure and gathers valid and reliable data for the problem under investigations.

This chapter deals with the description of the research methodology adopted by the investigator. It includes research design, setting of the study, population, sample, sample size, sampling technique, criteria for sample selection and description of the instrument, method of data collection and plan for data analysis.

RESEARCH DESIGN

The research design used for the study is pre-experimental one group pre test post test design.

SETTING OF THE STUDY

The study was conducted in Dr.Mehta's Hospitals, located in chetpet, chennai, which is an 230 bedded hospital, provides the leading neonatal and paediatric care among the hospitals in South India. Dr.Mehta's Hospitals has an excellent combination of the top paediatric and neonatal medical and surgical teams coupled with state of the art of intensive care and surgical facilities. Dr. Mehta's Hospitals conducts over 1000 paediatric and neonatal surgeries per year. The hospital has four blocks each block have three floors. The Neonatal Intensive Care Unit is located in 1st floor C- block. The Neonatal Intensive Care Unit has 32 beds which provides advanced technological care.

POPULATION

The population of the study was mothers of high risk newborn who are admitted in Dr. Mehta's hospitals.

SAMPLE

The sample consists of mothers of high risk newborn who were in Dr. Mehta's hospitals and who fulfil the inclusion criteria.

SAMPLE SIZE

The sample consists of 50 mothers of high risk new born.

SAMPLING TECHNIQUE

Purposive sampling technique was used by the researcher to select the Sample.

CRITERIA FOR SAMPLE SELECTION

Inclusion Criteria

- Mothers of child with small for gestation, preterm, Intrauterine growth retardation, low birth weight babies.
- Mothers who are able to read and understand tamil.
- Mothers who are willing to participate in the study.

Exclusion Criteria

- Mothers of critically ill babies with high risk condition.
- Mothers who are not willing to participate in the study.

DESCRIPTION OF THE INSTRUMENT

Structured Questionnaire was prepared to assess the level of knowledge among mothers of high risk newborn. This consists of three parts.

Part-I

It includes demographic variables of mother and child such as age of the mother, educational status, mode of delivery, type of family, type of marriage, family income and age of the child, gestational age, sex, birth order, birth weight.

Part-II

Structured Questionnaire was used to assess the knowledge of mothers regarding home care management of high risk newborn. It consists of 30 questions regarding home care management of high risk newborn on the aspect of general information thermoregulation, nutrition, hygienic measures, therapeutic positioning, immunization preventive measures

Each correct answer carries one mark and wrong answer carries zero mark. The total score is 30.

The scores were interpreted as follows:

76%-100%- adequate knowledge.

51%-75%- moderate knowledge.

<50%-inadequate knowledge.

Part-III

Information education communication package was prepared to give teaching program to mothers regarding home care management of high risk newborn which consists of video clips and booklets.

VALIDITY

Validity of the tool was obtained from the experts in the field of paediatrics.

RELIABILITY

The reliability of the instrument was assessed by using test-retest method. calculated test-retest co-relation co-efficient for knowledge questionnaire was 0.8. The correlation co-efficient was high and it is appropriate tool for assessing the knowledge score among mothers of high risk new born.

ETHICAL CONSIDERATION

The study was conducted after the approval of dissertation committee and director of Dr. Mehta's hospitals. Formal written permission was obtained from the administrative officer of the Dr. Mehta's Hospitals .Mothers of high risk new born were clearly explained about the study purpose and procedures. The formal written consent was obtained from the mothers of high risk newborn. The usual assurance of anonymity and confidentiality was obtained.

PILOT STUDY

A pilot study was conducted in the Dr.Mehta's hospitals chetpet, Chennai from the duration of 18-04-2011 to 24-11-2011. The refined tool was used for pilot study. The formal permission was obtained from the administrative officer of the Dr.Mehta's hospitals. The investigator selected the participants on the basis of inclusion criteria by using purposive sampling technique.

The brief introduction about the investigator and purpose of the study was given to the mothers and their doubts were clarified so as to get co-operation from the mothers. Oral consent and written consent was obtained from participants and confidentiality of the responses was assured. Pre test was done by instructing them to point out their answers in the self administered in the structured questionnaire. Information education communication package was given for 30 minutes. After three days post test was assessed by using the same tool.

The statistical analysis of the pilot study suggested a positive correlation between information education communication package and level of knowledge. The 'r' value is 0.8. The study was found to be reliable and appropriate by using test retest method. Findings of the pilot study also revealed that it was feasible and practicable to conduct the study in all aspects at the selected setting and the criteria measures was found to be effective.

DATA COLLECTION PROCEDURE

Structured Questionnaire was used by the investigator to assess the level of knowledge among mothers regarding home care management of high risk newborn. The investigator started the data collection procedure for the main study from the period of 01.06.11 to 30.06.11 in the Dr. Mehta's hospitals, Chetpet, Chennai. The investigator worked from morning 08.00 am to 3.00pm for six days in a week. A formal written permission was obtained from the administrative officer of the hospital.

The investigator selected the participants on the basis of inclusion criteria by using purposive sampling technique. Every day 3-5 participants were selected. A brief introduction about the investigator and purpose of the study was explained to the mothers and their doubts were clarified so as to get co-operation from the mothers. Written consent was obtained from participants confidentiality of the responses was assured. Pre test was done by instructing them to point out their answers in the Structured Questionnaire. Information education communication package on general information, thermo regulation, nutrition, hygienic measures was given for 30 minutes. After three days post test was assessed by using the same tool.

DATA ANALYSIS

The data obtained was analyzed by using both descriptive and inferential statistics. Demographic variables were computed by using descriptive statistics. Level of knowledge was analyzed by using inferential statistics to assess the effectiveness of Information, education communication package on level of knowledge regarding home care management of high risk new born among mothers.

Analysis of demographic variables was done in terms of frequency and percentage distribution. Mean and Standard deviation was used to compute the pre test and post test level of knowledge among mothers. Paired “t” test was used to evaluate the effectiveness of Information education and communication package on level of knowledge. Chi – square test was used to find out the association of pre test and post test level of knowledge of mothers with their demographic variables.

A STUDY TO ASSESS THE EFFECTIVENESS OF INFORMATION EDUCATION COMMUNICATION PACKAGE ON KNOWLEDGE REGARDING HOME CARE MANAGEMENT OF HIGH RISK NEWBORN AMONG MOTHERS IN DR. MEHTA'S HOSPITALS AT CHETPET, CHENNAI.

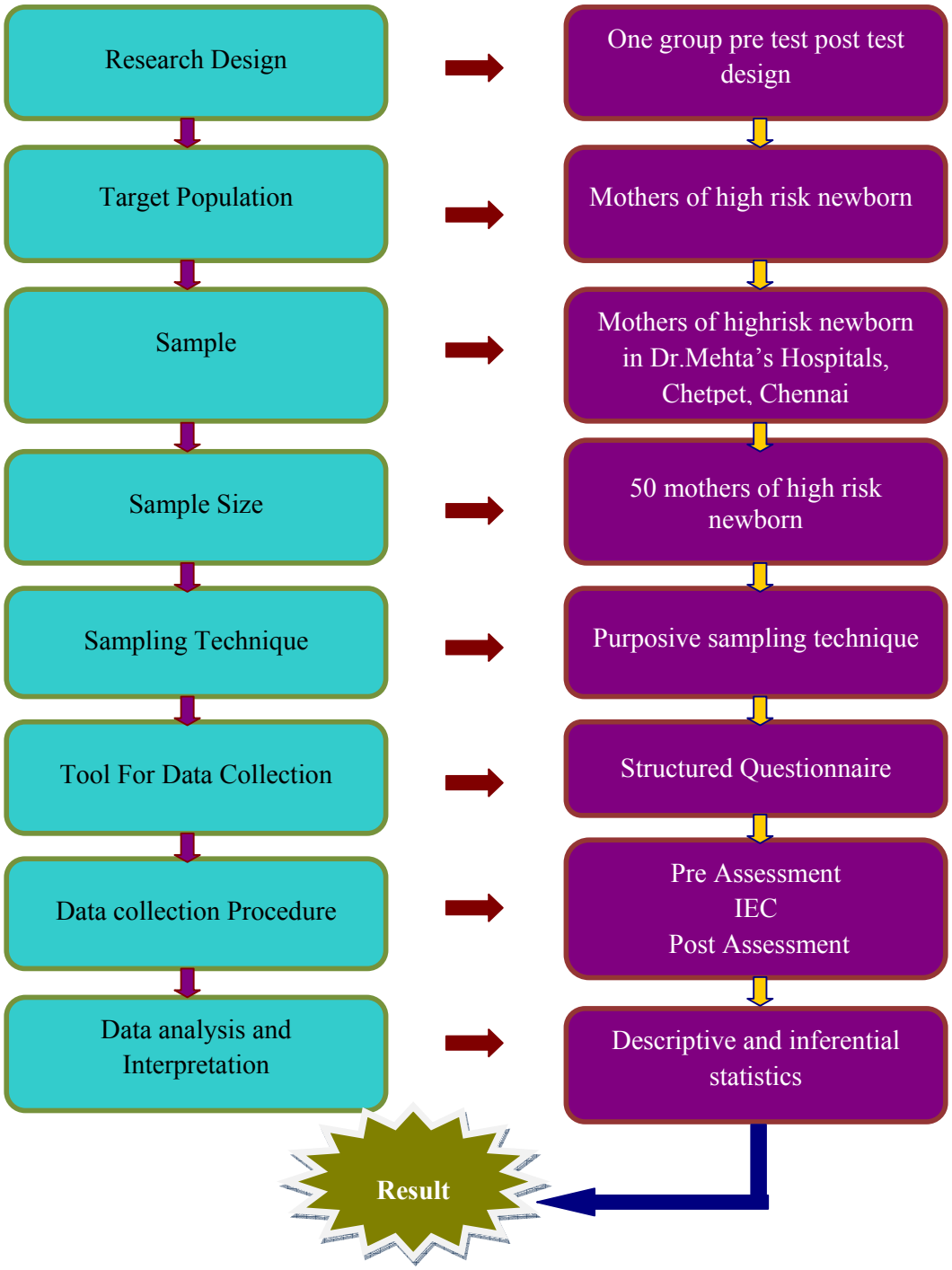

Fig. 2 : Schematic representation of research methodology adapted in this study.

CHAPTER – IV

DATA ANALYSIS AND INTERPRETATION

It is a systematic organization and synthesis of research data in order to answer the research question and test hypothesis. Interpretation is the process of making sense of study results and of examining their implication. The data findings have been analyzed and tabulated in accordance to the plan for data analysis and are interpreted under the following headings.

SECTION A: Frequency and percentage distribution of demographic variables of mothers with high risk newborn.

SECTION B: Frequency and percentage distribution of pre test level of knowledge regarding Home Care Management of high risk newborn among mothers.

SECTION C: Frequency and percentage distribution of post test level of knowledge regarding Home Care Management of high risk newborn among mothers.

SECTION D: Comparison of Frequency and percentage distribution of pre test and post test level of knowledge regarding Home Care Management of high risk new born among mothers.

SECTION E: Comparison of mean and standard deviation between pre test and post test level of knowledge regarding Home Care Management of high risk new born among mothers.

SECTION F: Association between pre test and post test level of knowledge regarding Home Care management of high risk newborn among mothers with their demographic variables.

SECTION A

Table 1: Frequency and percentage distribution of demographic variables of mothers with high risk new born.

N = 50

S.No	Demographic variables of mother	Frequency	Percentage
1	**Age of the Mother**		
	16 – 20 yrs	10	20
	21 – 25 yrs	12	24
	26 -30 yrs	18	36
	31- 35 yrs	10	20
2	**Educational Status**		
	Primary - Secondary	19	38
	Under Graduate Level	20	40
	Post Graduate Level	11	22
3	**Mode of Delivery**		
	Normal Vaginal Delivery	11	22
	LSCS	39	78
4	**Type of Family**		
	Nuclear Family	35	70
	Joint Family	15	30
5	**Type of Marriage**		
	Consanguineous	12	24
	Non Consanguineous	38	76
6	**Family Income**		
	< Rs.10,000	10	20
	Rs. 10,000 – 20,000	24	48
	>Rs. 20,000	16	32

Table 1 shows the frequency and percentage distribution of demographic variables of mothers with High risk new born. With respect to age 10 (20%) mothers were in the age group of 16 -20 years. 12 (24%) mothers were in the age group of 21-25 years, 18 (36%) mothers were in the age group of 26-30 years and 10 (20%) mother were in the age group of 31 – 35 years.

With regards to education 19 (38%) mothers had primary to secondary education, 20 (40%) mothers of high risk new born had undergraduate education and only 11 (22%) mothers of high risk new born had post graduate education. In accordance to mode of delivery 11 (22%) mothers delivered normally and most of them 39 (78%) delivered through Lower Segmental Cesarean Section.

Related to the type of family 35 (70%) mothers belongs to nuclear family and 15 (30%) mothers were in the Joint Family. Considering the type of marriage 12 (24%) mothers had consanguineous marriage and 38 (76%) mothers had non consanguineous marriage. With respect to family income 10 (20%) mothers were getting less than Rs.10,000 and 24 (48%) mothers were getting between Rs.10,000 to 20,000 and 16 (32%) mothers were getting more than Rs. 20,000.

Table 2: Frequency and percentage distribution of demographic variables of high risk new born.

N=50

S. No.	Demographic variables of High risk newborn	Frequency	Percentage
1	**Age of the High risk newborn**		
	1 – 5 days	26	52
	6 -10 days	10	20
	11- 15 days	14	28
	16 – 20 days	0	0
2	**Gestational age**		
	30 -32 weeks	3	9
	33 -34 weeks	21	42
	35 -37 weeks	26	52
3	**Sex**		
	Male	31	62
	Female	19	38
4	**Birth order**		
	First	36	72
	Second	14	28
5	**Birth Weight**		
	1501 – 2000 grams	4	8
	2001 – 2500 grams	24	48
	>2501 grams	22	44

Table 2 shows the frequency and percentage distribution of demographic variables of high risk new born. With respect to age of the high risk new born 26 (52%) high risk new born were in the age group of 1 -5 days, 10 (20%) high risk new born were in the age group of 6 -10 days and 14(28%) high risk new born were in the age group of 11-15 days. None of them were in the age group of 15 -20 days.

With regards to Gestational age of the high risk new born 3 (9%) high risk new born were between 30 -32 weeks. 21 (42%) were between 33 -34 weeks and 26 (52%) of them were between 35 -37 weeks. Related to sex of the high risk new born 31 (62%) high risk new born were male and 16 (36%) high risk new born were females. In accordance to birth order 36 (72%) high risk new born were born as a First child and 14 (28%) of them were born as second child.

Considering the birth weight 4 (8%) high risk new born were weighted 1501 -2000 grams. 24 (48%) were weighted between 2001 – 2500 grams and 22 (44%) of them were weighted greater than 2501 grams.

SECTION – B

Table 3: Frequency and percentage distribution of pre test level of knowledge regarding Home Care Management of high risk newborn among mothers.

N=50

Level of knowledge	Pre test	
	Frequency	Percentage
Adequate	1	2
Moderate	6	12
Inadequate	43	86

Table 3 shows the frequency and percentage distribution of pre test level of knowledge regarding Home Care Management of high risk new born among mothers. It indicates that 1 (2%) mother had adequate knowledge, 6 (12%) mothers had moderately adequate knowledge and 43 (86%) mothers had inadequate knowledge regarding Home Care Management of high risk new born.

SECTION – C

Table 4: Frequency and percentage distribution of post test level of knowledge regarding Home Care Management of high risk newborn among mothers.

N = 50

Level of Knowledge	Post test	
	Frequency	Percentage
Adequate	41	82
Moderate	9	18
Inadequate	0	0

Table 4 shows the frequency and percentage distribution of post test level of knowledge regarding Home Care Management of high risk newborn among mothers. It reveals that 41 (82%) mothers had adequate knowledge, 9 (18%) mothers had moderately adequate knowledge and none of them had inadequate knowledge regarding Home Care Management of newborn.

SECTION – D

Table 5: comparison of Frequency and percentage of pre test and post test level of knowledge regarding Home Care Management of high risk newborn among mothers.

N =50

Level of Knowledge	Pre test		Post test	
	Frequency	Percentage	Frequency	Percentage
Adequate	1	2	41	82
Moderate	6	12	9	18
Inadequate	43	86	0	0

Table 5 shows that comparison of pre and post test level of knowledge regarding Home Care Management of high risk newborn among mothers in pre test level of knowledge 1 (2%) of mother had adequate knowledge, 6 (12%) mothers had moderately adequate knowledge and most of them 43 (86%) mothers had inadequate knowledge.

In post test level of knowledge the majority of the mothers 41 (82%) had adequate knowledge and 9 (18%) had moderately adequate knowledge and none of them were had inadequate knowledge regarding Home Care Management of high risk newborn.

SECTION – E

Table 6: Comparison of mean and standard deviation between pre test and post test level of knowledge regarding Home Care Management of high risk new born among mothers.

N=50

Assessment	Mean	Standard Deviation	Paired 't' test
Pre test	11.42	2.14	27.20***
Post test	24.64	2.22	

***p ≤0.001

Table 6 shows the Comparison of mean and standard deviation between pre test and post test knowledge of knowledge regarding Home Care Management of high risk newborn among mothers the analysis reveals that the pre test mean score was 11.42 with the standard deviation of 2.14 and the post test mean score was 24.64 with the standard deviation of 2.22. The paired "t" test value was 27.20 which was statistically significant at $p < 0.001$ level. The difference between pre test and post test level of knowledge was very high and statistically significant. Thus, it indicates the effectiveness of information education communication package on Home Care Management of high risk new born among mothers.

SECTION – F

Table 7: Association between pre test level of knowledge regarding Home Care Management of high risk newborn among mothers with their demographic variables.

N=50

S. No	Demographic variables	Pre test level of knowledge				Chi – Square χ^2
		Inadequate		Moderate		
		n	%	n	%	
1	**Age of the Mother**					
	16-20 yrs	7	70	3	30	χ^2 = 7.27
	21-25 yrs	12	100	0	0	df = 3
	26-30 yrs	17	94.4	1	5.6	NS
	31-35 yrs	7	70	3	30	
2	**Education of the mother**					
	Primary-Secondary	17	89.5	2	10.5	χ2 = 3.99
	Under graduate level	15	75	5	25	df = 2
	Post graduate level	11	100	0	0	NS
3	**Mode of delivery**					χ^2 = 2.30
	Normal Vaginal delivery	11	100	0	0	df = 1
	LSCS	32	82.1	7	17.9	NS
4	**Type of family**					χ^2 = 0.96
	Nuclear family	29	82.9	6	17.1	df = 1
	Joint family	14	93.3	1	6.7	NS
5	**Type of Marriage**					χ^2 = 1.58
	Consanguineous	9	75	3	25.0	df = 1
	Non Consanguineous	34	89.5	4	10.5	NS
6	**Family Income**					
	<Rs. 10,000	9	90	1	10	χ^2 = 1.86
	Rs.10,000 – 20,000	19	79.2	5	20.8	df = 2
	>Rs.20,000	15	93.8	1	6.2	NS
7.	**Age of High risk Newborn**					
	1 – 5 days	20	76.9	6	23.1	χ^2 = 3.95
	6 -10 days	10	100.0	0	0.0	df = 2
	11- 15 days	13	92.9	1	7.1	NS
	16- 20 days	0	0	0	0	
8.	**Gestational age**					χ^2 = 4.84
	30 -32 weeks	2	66.7	1	33.3	df = 2
	33 -34 weeks	16	76.1	5	23.9	NS
	35 -37 weeks	25	96.1	1	3.9	
	Sex of the High risk Newborn					χ^2 = 0.08
	Male	27	87.1	4	12.9	df = 1
	Female	16	84.2	3	15.8	NS
10.	**Birth order of the High risk Newborn**					χ^2 = 0.76
	First	30	83.3	6	16.7	df = 1
	Second	13	92.9	1	7.1	NS
11.	**Birth Weight of the High risk Newborn**					
	1501 – 2000 grams	4	100.0	0	0.0	χ^2 = 2.02
	2001 – 2500 grams	19	79.2	5	21.8	df = 2
	>2501 grams	20	90.9	2	9.1	NS

NS – Non significant

Table 7 shows the association between pre test level of knowledge regarding Home Care Management of high risk newborn among mothers with their demographic variables. It reveals that there was no significant association found with the demographic variables

Table 8: Association between post test level of knowledge regarding Home Care Management of high risk newborn among mothers with their demographic variables.

N=50

S.No	Demographic variables	Post test level of knowledge				Chi – Square χ^2
		Moderate		Adequate		
		n	%	n	%	
1.	**Age of the Mother**					
	16-20 yrs	5	50	5	50.0	χ^2 = 9.73
	21-25 yrs	2	16.7	10	83.3	df = 3
	26-30 yrs	2	11.1	16	88.9	**S**
	31-35 yrs	0	0	10	100	
2.	**Educational status**					
	Primary-Secondary	7	36.8	12	63.2	χ2 = 7.85
	Under graduate level	2	10.0	18	90.0	df = 2
	Post graduate level	0	0	11	100	**S**
3.	**Mode of delivery**					χ^2 = 7.20
	Normal Vaginal delivery	5	45.4	6	54.6	df = 1
	LSCS	4	10.3	35	89.7	**S**
4.	**Type of family**					χ^2 = 0.06
	Nuclear family	6	17.1	29	82.9	df = 1
	Joint family	3	20.0	12	80.0	NS
5.	**Type of Marriage**					χ^2 = 2.52
	Consanguineous	4	33.3	8	66.7	df = 1
	Non Consanguineous	5	13.2	33	86.8	NS
6.	**Family Income**					
	<Rs. 10,000	1	10.0	9	90.0	χ^2 = 1.55
	Rs.10,000 – 20,000	6	25.0	18	75.0	df = 2
	>Rs.20,000	2	12.5	14	87.5	NS
7.	**Age of High risk Newborn**					
	1 – 5 days	3	11.5	23	88.5	χ^2 = 1.83
	6 -10 days	3	30.0	7	70	df = 2
	11- 15 days	3	21.4	11	78.6	NS
	16 – 20 days	0	0	0	0	
8.	**Gestational age**					
	30 -32 weeks	1	33.3	2	66.7	χ^2 = 3.93
	33 -34 weeks	6	28.6	15	71.4	df = 2
	35 -37 weeks	2	7.7	24	92.3	NS
9.	**Sex of the High risk Newborn**	5	16.1	26	83.9	χ^2 = 0.08
	Male	4	21.1	15	78.9	df = 1
	Female					NS
10.	**Birth order of the High risk Newborn**	6	16.7	30	83.3	χ^2 = 0.19
	First	3	21.4	11	78.6	df = 1
	Second					NS
11.	**Birth Weight of the High risk Newborn**	1	25.0	3	75.0	χ^2 = 2.11
	1501 – 2000 grams	6	25.0	18	75.0	df = 2
	2001 – 2500 grams	2	9.1	20	90.9	NS
	>2501 grams					

S – Significant NS – Non significant

The table 8 shows the association between post test level of knowledge regarding Home Care Management of high risk newborn among mothers with their demographic variables. The analysis revealed that there was significant association found with the age of the mother the chi square value 9.73 at the level of $p \leq 0.02$. With educational status the chi square value of 7.85 at the level of the $p \leq 0.01$. Regarding the mode of the delivery the chi square of value of 7.20 at the level of $p \leq 0.01$ and there was no association found with other demographic variables like type of family, type of marriage and family income, age of the child gestational age, sex of the child, birth order of the child.

CHAPTER V

DISCUSSION

This chapter describes the result with respect of the objectives of the study. The study aimed to assess the effectiveness of information education communication package on knowledge regarding home care management of high risk newborn among mothers.

The hypothesis formulated was that there was no significant association between information, education communication package on knowledge regarding home care management of high risk newborn among mothers. The review of literature included related researches which provide a strong foundation for the study including the basis for conceptual frame work and formation of tool.

The conceptual frame work for this study was developed based on Kings goal attainment theory. The research design used in the study was pre experimental one group pre test and post test. It was carried out for 50 participants who fulfilled the inclusion criteria. Purposive sampling technique was used to select the samples among the target population.

The Structured Questionnaire was distributed to the sample to assess the pre test level of knowledge regarding home care management of high risk newborn. Information education communication package was given to the mothers with the duration thirty minutes. The post test was conducted after three days by using the same tool.

The data collected were analyzed by using descriptive and inferential statistics. The frequency and percentage distribution of demographic variables of mother's with high risk new born. With respect to age of the mother 10 (20%) mothers were in the age group of 16 -20 years. 12 (24%) mothers were in the age group of 21-25 years 18 (36%) mothers were in the age group of 26-30 years and 10 (20%) mother were in the age group of 31 – 35 years.

With regards to education 19 (38%) mothers had primary to secondary education, 20 (40%) mothers had undergraduate education and only 11 (22%) mothers had post graduate education. In accordance to mode of delivery 11 (22%) mothers delivery normally and most of them 39 (78%) delivered through Lower Segmental Cesarean Section.

Related to the type of family 35 (70%) mothers were belongs to nuclear family and 15 (30%) mothers were in the Joint Family. Considering the type of marriage 12 (24%) mothers were had consanguineous marriage, 38 (76%) mothers had non consanguineous marriage. With respect to family income 10 (20%) mothers were getting less than Rs.10,000, 24 (48%) mothers were getting between Rs.10,000 to 20,000 and 16 (32%) mothers were getting more than Rs. 20,000.

The first objective was to assess the pretest level of knowledge regarding home care management of high risk newborn among mothers.

The pre test level of knowledge regarding home care management of high risk new born among mothers. It indicates that, 1 (2%) mother had adequate knowledge, 6 (12%) mothers had moderately adequate and 43 (86%) mothers had inadequate knowledge regarding home care management of high risk new born.

The study finding were consistent with Madhu. K, et al., (2008) effectiveness of breast feeding in reducing mortality and morbidity. The study was conducted with new born who came to Primary Health Centre in Kengeri, Bangalore. The data was collected in using pre test questionnaire on breast feeding and new born practices. This study shows that 97% of mothers initiated breast fed, 19% used pre lacteal feeds. They suggested need for breast feeding intervention program especially for antenatal and postnatal checkups.

The second objective was to assess the post test level of knowledge regarding home care management of high risk newborn among mothers.

The post test level of knowledge regarding home care management of high risk newborn among mothers. It reveals that, 41 (82%) mothers had adequate knowledge, 9 (18%) mothers had moderately adequate knowledge and none of them had inadequate knowledge regarding home care management of newborn.

The study findings were consistent with the Upul Senarath, (2007) to evaluate the effectiveness of a training program for care providers in improving practice of essential newborn care in obstetric units. This study was conducted in the district of Puttalam in Sri Lanka. Prospective design was used in this study followed a before and after design involving an intervention and a control group. The study population consist of 60 mothers of newborn. The study concluded that the practices of cleanliness, thermal protection and neonatal assessment was improved in the intervention group.

The third objective of the study was to determine the effectiveness of Information Education Communication package on knowledge regarding home care management of high risk new born among mothers.

The pre test and post test knowledge of knowledge regarding home care management of high risk newborn among mothers the analysis reveals that the pre test mean score was 11.42 with the standard deviation of 2.14 and the post test mean score was 24.64 with the standard deviation of 2.22. The paired "t" test value was 27.20 which was statistically significant at $p \leq 0.001$ level. The difference between pre test and post test level of knowledge was very high and statistically significant. Thus, it indicates the effectiveness of information education communication package on home care management of high risk new born among mothers.

The study findings were consistent with Kokltan, et al., 2010 the study was to identify factors associated with exclusive breasts feeding. The Investigator selected 682 mother – infant pairs with infants upto six months attending maternal and child health section of the government health clinics in Klang, Malaysia. Cross sectional study, face to face interview, pretest questionnaire method was used. Mothers with

husbands who support breast feeding and mothers who practice bed sharing. So they concluded intervention that seek to increase exclusive breast feeding should focus on women who are at risk of early discontinuation of breast feeding.

The fourth objective of the study was to associate the pre test and post test level of knowledge regarding home care management of high risk new born among mothers.

The association between pre test level of knowledge regarding home care management of high risk newborn among mothers with their demographic variables. There was no association found with the demographic variables. The association between posttest level of knowledge regarding homecare management of high risk newborn among mothers with their demographic variables. The analysis revealed that there was the statistical significant association found with the age of the mother with Chi square value of 9.73 at the level of $p \leq 0.02$. With educational status of mother the Chi square value of 7.85 at the level of $p \leq 0.01$. With the mode of the delivery the chi square value of 7.20 at the level of $p \leq 0.01$ and there was no association found with other demographic variables like type of family, type of marriage and family income, age of the child gestational age, sex of the child, birth order of the child. So information education communication package on knowledge on regarding home care management of high risk new born among mothers was very effective.

CHAPTER VI

SUMMARY, CONCLUSIONS, NURSING IMPLICATIONS, RECOMMENDATIONS AND LIMITATION

The heart of the research project lies in reporting the findings of the study. This is the most creative and demanding part of the study. This chapter gives a brief account of the present study including the conclusions drawn from the findings, suggestions for the study, nursing implications, recommendation and limitation of the study. The present study was intended to know the level of knowledge regarding home care management of high risk newborn among mothers.

SUMMARY

The study was conducted to determine the effectiveness of information education and communication package on knowledge regarding management of high risk newborn among mothers. The purpose of the study was helping the mothers in gaining adequate knowledge by providing information education and communication package regarding home care management of high risk newborn.

The following objectives were set for the study

1. To assess the pre test level of knowledge regarding home care management of high risk new born among mothers.
2. To assess the post test level of knowledge regarding home care management of high risk new born among mothers.
3. To determine the effectiveness of information education communication package on knowledge regarding home care management of high risk new born among mothers.
4. To associate the pre test and post test level of knowledge regarding home care management of high risk newborn among mothers with their selected demographic variables.

The hypothesis formulated that there was no significant association between information education communication package on knowledge regarding home care management of high risk newborn among mothers. The review of literature included related researches which provide a strong foundation for the study including the basis for conceptual frame work and formation of tool.

The conceptual frame work for this study was developed based on Kings goal attainment theory. The research design used in the study was pre experimental one group pre test and post test. It was carried out with 50 participants who fulfilled the inclusion criteria. Purposive sampling technique was used to select the samples among the target population.

The data collection tools were validated and reliability was established. After the pilot study the data collection for the main study was done. The tool was distributed to the sample to assess the pre test level of knowledge regarding home care management of high risk new born. Information education communication package was given to the mothers of high risk newborn for the duration of 30 minutes. The post test was assessed after 3 days by using same tool to assess the knowledge regarding home care management of high risk newborn among mothers.

The data collected were analyzed using descriptive and inferential statistics. The frequency and percentage distribution of demographic variables of mother's with high risk new born. With respect to age of the mother 10 (20%) mothers were in the age group of 16 -20 years. 12 (24%) mothers were in the age group of 21-25 years 18 (36%) mothers were in the age group of 26-30 years and 10 (20%) mother were in the age group of 31 – 35 years.

The pre test level of knowledge regarding home care management of high risk new born among mothers. It indicates that 1 (2%) mother had adequate knowledge, 6 (12%) mothers had moderately adequate and 43 (86%) mothers had inadequate knowledge regarding home care management of high risk new born.

The post test level of knowledge regarding home care management of high risk newborn among mothers. It reveals that, 41 (82%) mothers had adequate knowledge, 9 (18%) mothers had moderately adequate knowledge and none of them had inadequate knowledge regarding home care management of newborn.

Comparison of mean and standard deviation between pre test and post test level of knowledge regarding Home Care Management of high risk newborn among mothers. The analysis reveals that the pre test mean score was 11.42 with the standard deviation of 2.14 and the post test mean score was 24.64 with the standard deviation of 2.22. The paired "t" test value was 27.20 which was statistically significant at $p < 0.05$ level. The difference between pre test and post test level of knowledge was very high and statistically significant. Thus, it indicates the effectiveness of information education communication package on Home Care Management of high risk new born among mothers.

CONCLUSION

The present study assessed the effectiveness of information education communication package. The study findings revealed that there was a significant improvement in the level of knowledge regarding home care management of high risk newborn among mothers after providing information education communication package. Based on the statistical findings it is evident that provision of such kind of information education communication package helped the mothers to acquire knowledge regarding home care management of high risk new born. Therefore information education communication package on knowledge regarding home care management of high risk newborn was very important to meet the needs of the mothers and their high risk newborns well being.

NURSING IMPLICATIONS

The findings of the study have implications in various areas of nursing education, practice, administration and nursing research.

Nursing Practice

A pediatric nurse is the one who is having the opportunity to come in contact with the high risk newborn and their caregivers during their hospitalization. She has a vital role in identifying or assessing their need to provide care for high risk newborn. Collaborative training program regarding activities of daily basic care and its needs to be provided for the mothers of high risk newborn.

Nursing service must improve the facilities of care in neonatal intensive care unit. Nursing personnel who is in majority in the health care setting will remain constantly with the patient in providing care. So they should give importance in providing information to mothers about the care of children. So it has to be included in the nursing care plan devised for the high risk newborn.

The education in the clinical area should be provided in the form updating the knowledge of the staff by providing relevant in service education program, emphasis in importance of parental participation in taking care of high risk newborn.

Neonatal intensive care nurse after special training program, also play the role of nurse educators. She has to assess the needs of newborn and plan the activities for the mother to take care of their children.

Nursing Education

Nurse educators are not only have a role to educate the students, but also to educate the staff to prepare them and update their knowledge, so as to enhance the application of theory into practice. Biological and psychological needs of new born should be included in the curriculum.

The educational institutions must provide opportunities for nursing students to get training from various department of paediatrics, then they can learn to know about their needs, assess and plan of care, participate and implement in care of high risk newborn.

Students must be encouraged to organize many educational programs for the mothers to create awareness on need of home care management of high risk newborn.

Nursing Administration

With technological advances and ever growing challenges of the health care needs, the administrator has a responsibility to provide with substantive continuing educational opportunities. This enables the nurses to update their knowledge, skills and quality of care. The nurse administrator should concentrate more in the part of legal and ethical issues in home care management of high risk newborn.

The nurse administrators can formulate a standard practice protocols for the management of high risk newborn. The administrators should motivate the caregivers for their responsibility in taking care of home care management of high risk newborn.. Nursing administrators should plan and implement collaborative training involving health team members and care givers.

Nursing Research

Nurse researcher should be motivated to conduct more studies to identify the strategies of imparting knowledge to mothers of high risk newborn about their management. Nurse Researcher should focus on identifying the needs of high risk newborn and parental support to satisfy those needs.

Nurse researcher should publish the study findings and communicate the findings regarding parental support to meet the needs of high risk newborn to enhance evidence based practice. Nursing researcher should encourage and conduct further researches related to creating awareness to parents especially primary caregivers about their role in promoting the home care.

RECOMMENDATIONS

The following are recommendations for further research:

- A similar study can be replicated on a larger sample.
- A similar study can be replicated with a control group
- A similar study can be replicated in a community area.

LIMITATION

During the period of study as the mothers were emotionally affected the investigator faced the problem in gathering mothers together.

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INFORMATION EDUCATION COMMUNICATION PACKAGE

INTRODUCTION

General Information

The high- risk newborn can be defined as a new born, regardless of gestational age or birth weight who 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 extra uterine existence. The high –risk period encompasses human growth and development from the time of viability (the gestational age at which survival out side the uterus is believed to be possible or as early as 23 weeks of gestation) up to 28 days after birth and includes threats to life and health that occur during the prenatal, Perinatal, and postnatal periods.

There has been increased interest in near- term infants of 35 to 36% week's gestation who may receive the same treatment as terms infants. It is emphasized that some near- term infants often experience similar morbidities to preterm infants: respiratory distress, hypoglycemia requiring treatment, temperature instability, poor feeding, jaundice, and discharge delays as a result of illness. Therefore assessment and prompt intervention in life threatening prenatal emergencies often make the difference between a favorable outcome and a lifetime of disability. The nurse in the newborn nursery is familiar with the characteristics of neonates and recognizes the significance of serious deviations from expected observations. When providers can

anticipate the need for specialized care and plan for it, the probability of successful outcome is increased.

Classification According to Size

Low-birth-weight (LBW) infant -An infant whose birth weight is less than 2500 g (5.5 lb), regardless of gestational age. Appropriate-for-gestational-age (AGA) infant-An infant whose weight falls between the 10th and 90th percentiles on intrauterine growth curves

Small-for-date (SFD) or small-for-gestational-age (SGA) infant-An infant whose rate of intrauterine growth was slowed and whose birth weight falls below the 10th percentile on intrauterine growth curves. Intrauterine growth restriction (IUGR)-Found in infants whose intrauterine growth is retarded (sometimes used as a more descriptive term for the SGA infant)

The causes of High Risk New Born

- Maternal malnutrition
- Race
- Maternal disease condition

- Multiple gestations
- Congenital infections
- Placental dysfunction
- Very young mother and unmarried mother
- Mothers of more than 35 years of age

THERMOREGULATION

Prevention of heat loss in the distressed infants is absolutely essential for survival and maintaining a neutral thermal environment is challenging aspects of neonatal care. Thermoregulation means maintenance of warmth of neonates

Hypothermal means decreased optimal temperature of the neonates. The neonates should be provided by adequate appropriate clothing. cold stress or hypothermia will be identified by hands feet abdomen are cold while touching the neonates

Ways to keep babies warm

There are several ways to keep babies warm, including the following:

A baby's wet skin loses heat quickly by evaporation and can lose 2 to 3°F (Immediate drying and warming can be done with warm blankets and skin-to-skin contact with the mother, or another source of warmth such as a heat lamp or over-bed warmer.)

Babies are usually dressed in a gown or T-shirt, a diaper, and a hat. A baby can lose large amounts of heat through his/her head. Often, a blanket is wrapped snugly around the baby, called swaddling.

- Newborns large surface area, thin layer of subcutaneous fat and unique mechanism for producing heat predispose the infant to excessive heat loss
- The infant's high rate of metabolism is closely correlated with the rate of fluid exchange, which is 7 times greater than adults
- Attachment and bonding between infants and parents, but siblings need to be included

When babies are cold-stressed, they use energy and oxygen to generate warmth. If skin temperatures drop just one degree from the ideal 97.7° F (36.5°C), a baby's oxygen use can increase by 10 percent. By keeping babies at optimal temperatures, neither too hot or cold, they can conserve energy and build up reserves. This is especially important when babies are sick or premature.

Kangaroo care

Kangaroo 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. The kangaroo position provides ready access to nourishment. The parent's stable body temperature helps to regulate the neonate's temperature more smoothly.

Kangaroo care arguably offers the most benefits for preterm and low birth weight infants, who experience more normalized temperature, heart rate, and respiratory rate increased weight gain, fewer studies suggest that preterm infants who experience kangaroo care have improved cognitive development, decreased stress levels, reduced pain responses, normalized growth, and positive effects on motor development. Kangaroo care also helps to improve sleep patterns of infants, and may be a good intervention for colic. Earlier discharge from hospital is also a possible outcome finally, kangaroo care helps to promote frequent breastfeeding, and can enhance mother-infant bonding

Typically in kangaroo care, the baby wears only a diaper and is tied in a head-up position to the mother's bare chest with a strip of cloth in a manner that extends the baby's head and neck to prevent apnea. The mother wears a shirt or hospital gown with opening to the front. The cloth wraps around and under the baby's bottom to create flexion.

The tight bundling is enough for the mother's breathing and chest movement to stimulate the baby's breathing. Because of the close confines of being attached to its mother's chest, the baby is enclosed in a high carbon dioxide environment which also stimulates breathing. Fathers can also use the skin-to-skin contact method.

Beginning kangaroo care within the first 2 hours after birth seems to be the most effective time period for successful breastfeeding. Many advocates of natural birth encourage immediate skin-to-skin contact between mother and baby after birth, with minimal disruption. Babies must be kept warm and dry. This method can be used continuously around the clock or for short periods per day gradually increasing as

tolerated for infants who are compromised by severe health problems. It can be started at birth or within hours, days, or weeks after birth. Proponents of kangaroo care encourage maintaining skin-to-skin contact method for about six weeks so that both baby and mother are established in breastfeeding and have achieved physiological recovery from the birth process.

While kangaroo care is similar, in some ways, to the practice of baby wearing, the two have their differences. Kangaroo care is primarily practiced on premature babies with simple equipment and at least some medical supervision. Baby wearing can be done with many different types of carriers and slings, and is commonly practiced with newborns and toddlers alike.

Nutrition:-

In most cases, breast milk is the most perfect food for your baby. Breast milk

contains easily digestible proteins, many factors that support your new baby's immature immune system, and other factors that aid in digestion. It is also low in cost and requires no preparation. Breast fed babies are also less likely to have colic, upper respiratory infections, ear infections, constipation, asthma or allergies. And breast feeding will burn up almost 500 of mom's calories each day. Most breast feeding babies will eat for 10-15 minutes on each breast every 2 to 2 ½ hours and also demand. Formula feeding babies will take 2-3 ounces every 2-4 hours. By 4-8 weeks your baby should be on a more predictable schedule.

EBM can be stored room Temperature for 8 Hours and it can be stored refrigerator for 24 Hours. The Baby needed 750 – 1500 Ml Per day it may vary according to body weight. The weaning should started after six months only.

Hygienic measures: -

Caring for a baby can be hard especially when looking after their hygiene needs, and often these skills are needed a lot more frequently than an adult's. It can be very daunting to be responsible for the needs of a newborn, but with a little practice, some basic instructions, common sense and a routine, these tasks become easier and can provide valuable one to one time for you and your child.

Hand Washing and Bathing:-

Unless your baby particularly enjoys it, there is no need to bathe a child everyday. Every other day is fine for bathing, and often it can provide the ideal time for another person, such as the father, to spend some quality time with their little one. This also gives mum a chance to spend some time away from the baby. As a baby's skin can tend to be quite dry and sensitive, plain water and either a plain soft wash cloth or cotton wool/pads should be used. Often in the first few months, soaps, shampoos, talc and moisturizers are not needed unless you feel confident that their skin can cope with it.

A baby can be kept quite clean by simply using some cotton wool or pads and some warm water. Baby can be wrapped in a warm towel, and starting with their face, cotton wool or cotton pads, (these might be better as they are less likely to leave fluff and fibers on the baby's skin) can be used to firstly wash then dry the selected area. A fresh piece should be used on each eye, then working down the body all areas should

be washed leaving the navel and nappy area strict attention should be given to drying the skin, especially in and around the skin creases such as the underarms, under the neck and between the fingers and toes. This routine should be carried out at least one a day or more often if your baby needs.

SKIN CARE:-

The Skin irritation should be prevented by avoid direct contact blanket with skin the diapers should be changed immediately after voiding

Decreases pressure from externally applied forces using water air or gel mattresses sheepskin or cotton bedding

Use emollient in the diaper area (Groin and thighs) to reduce urine irritation.

Before touching the baby you do hand washing.

Advice the visitors to do hand washing before touching the baby

Therapeutic positioning

The American academy of pediatrics recommends the supine sleeping position for healthy infants in the first year of life as a preventive measure for SIDS. Prone sleeping has decreased from more than 70% to about 13% therapeutic positioning is used to reduce the potential for acquired positional deformities that can affect motor development play skills, attractiveness, and social attachment (Monterosso Kristjanson, Cole ad others). Positioning can affect stability and comfort, and each infant must be observed for the effects of any position or repositioning.

The goal of therapeutic positioning for preterm and high-Risk infants is to provide adequate support and containment as indicated to sustain flexed and midline

postures, in an attempt to minimize positional deformities and assist infants in remaining calm and organized.

The position should be changed every 2 to 3 hours after feeding the baby should be positioned in right lying position for easy emptying of stomach. The new born bay head should be elevated after feeding.

Immunization and preventive measures

It's a good idea to keep a record of immunizations received. Record sheets are often provided by doctors or clinics. They're valuable if your family moves or changes doctors, and are a handy reminder of upcoming vaccines or boosters. They are also proof of your child's protection against certain infectious diseases.

Your child's immunization record should specify the types of vaccine, and be dated and signed by the doctor each time an immunization is given. The record should be kept at home in a safe, accessible place, and should be taken with the family on trips away from home.

Protecting Your Newborn from Disease

Immunization is one of the most important steps you can take to ensure your baby's current and future health. Since immunization was first invented, it has saved hundreds of thousands of children's lives. This simple procedure involves the use of vaccines, which protect children from serious and sometimes fatal infectious diseases by strengthening their immunity (their body's ability to fight off these diseases).

Generally, babies may be ready for discharge when they are steadily gaining weight, have a stable temperature in a regular crib, can feed from a bottle or the breast without difficulty breathing or other problems, have mature and stable heart and breathing ability. Babies also need any required immunizations or screening tests, including vision and hearing, checking for risks for additional complications, plans for treatment of on-going medical problems.

Parents and other home caregivers need instruction in feeding, basic baby care, baths, skin care, taking temperature, etc., symptoms of illness, sleep positioning and safety measures.

Thank you …..

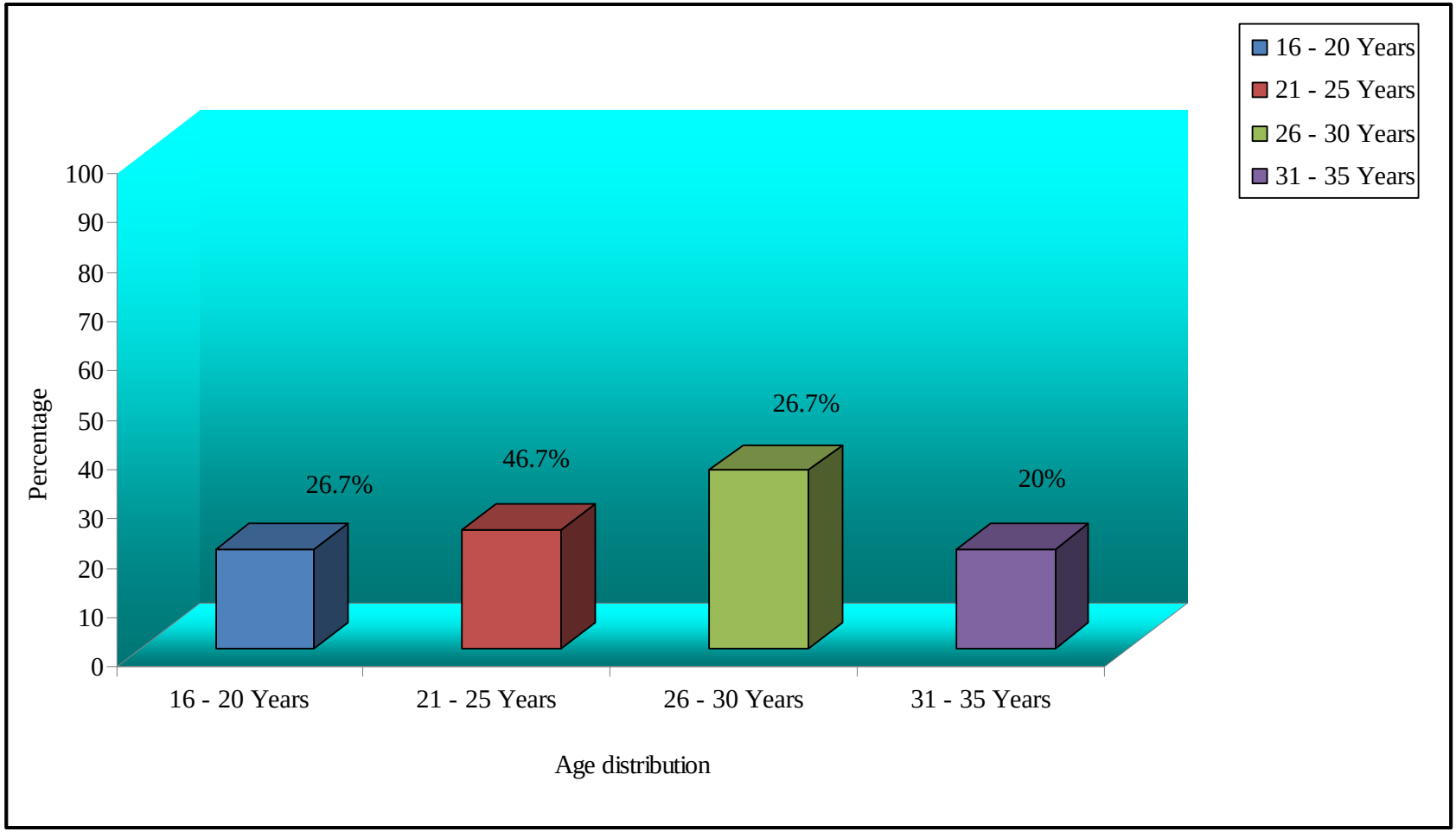

Fig.3: Percentage distribution of age of mothers with high risk newborn.

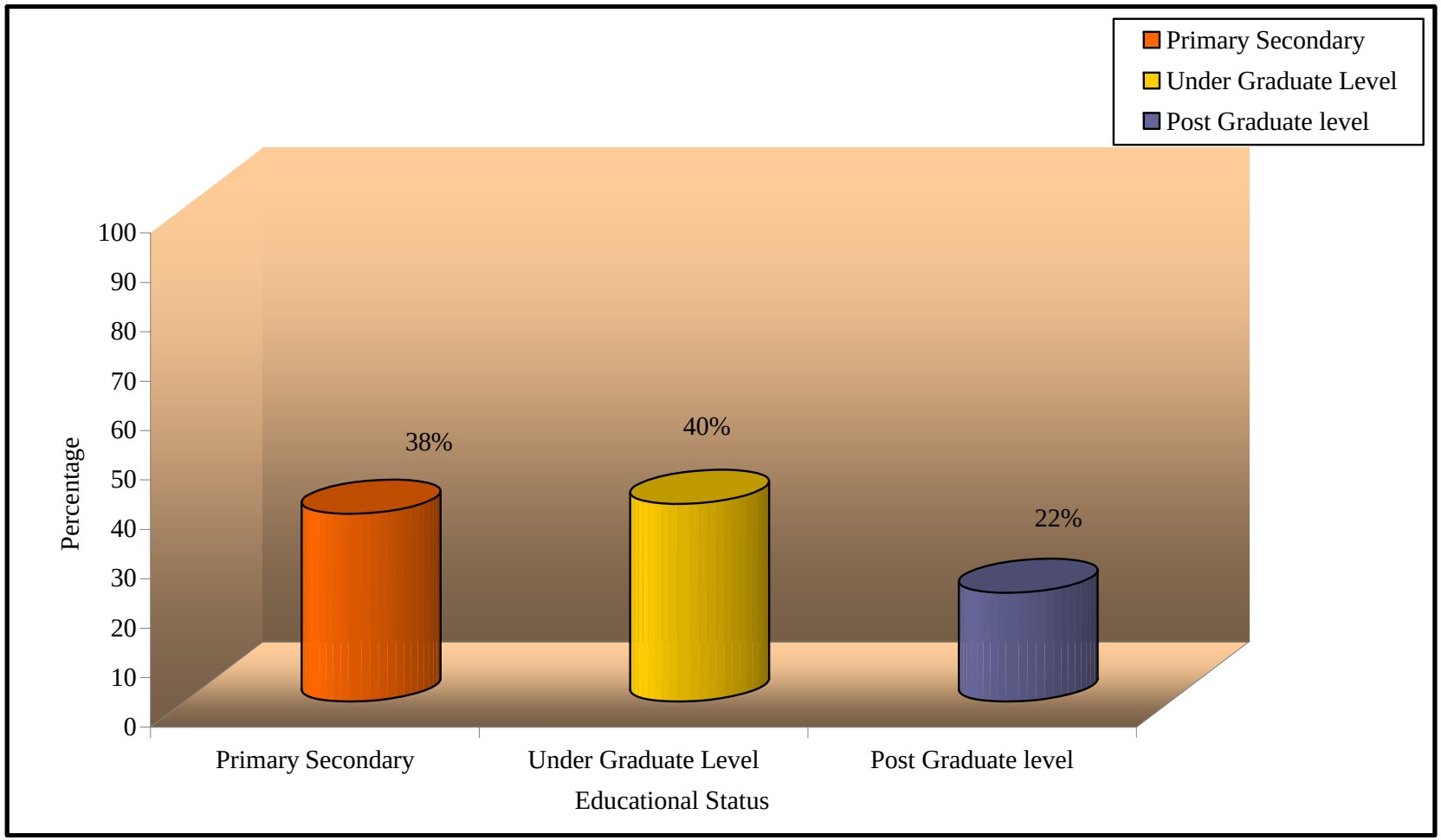

Fig.4: Percentage distribution of education of the mothers with high risk newborn.

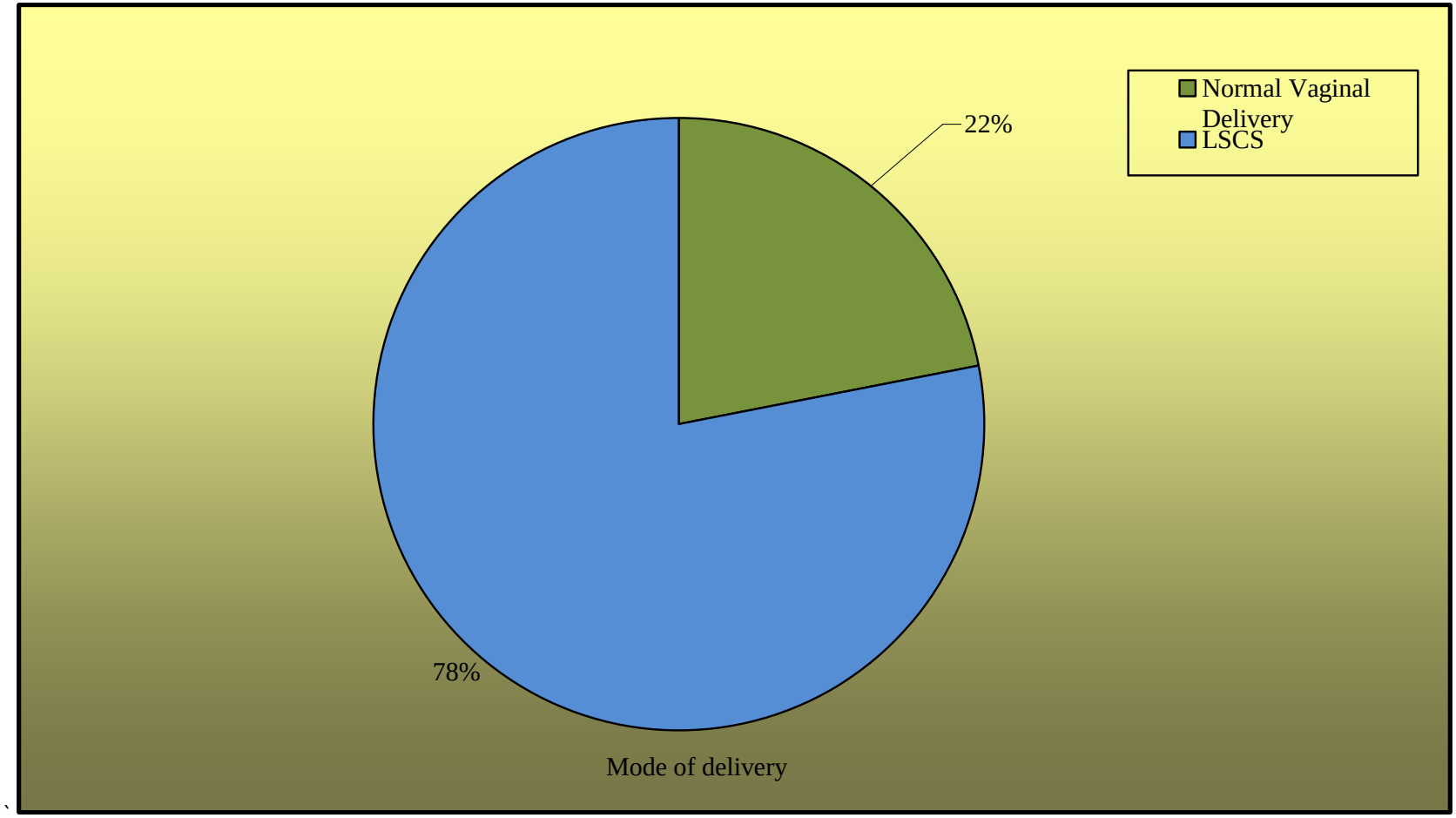

Fig.5: Percentage distribution of mode of delivery of mothers with high risk newborn.

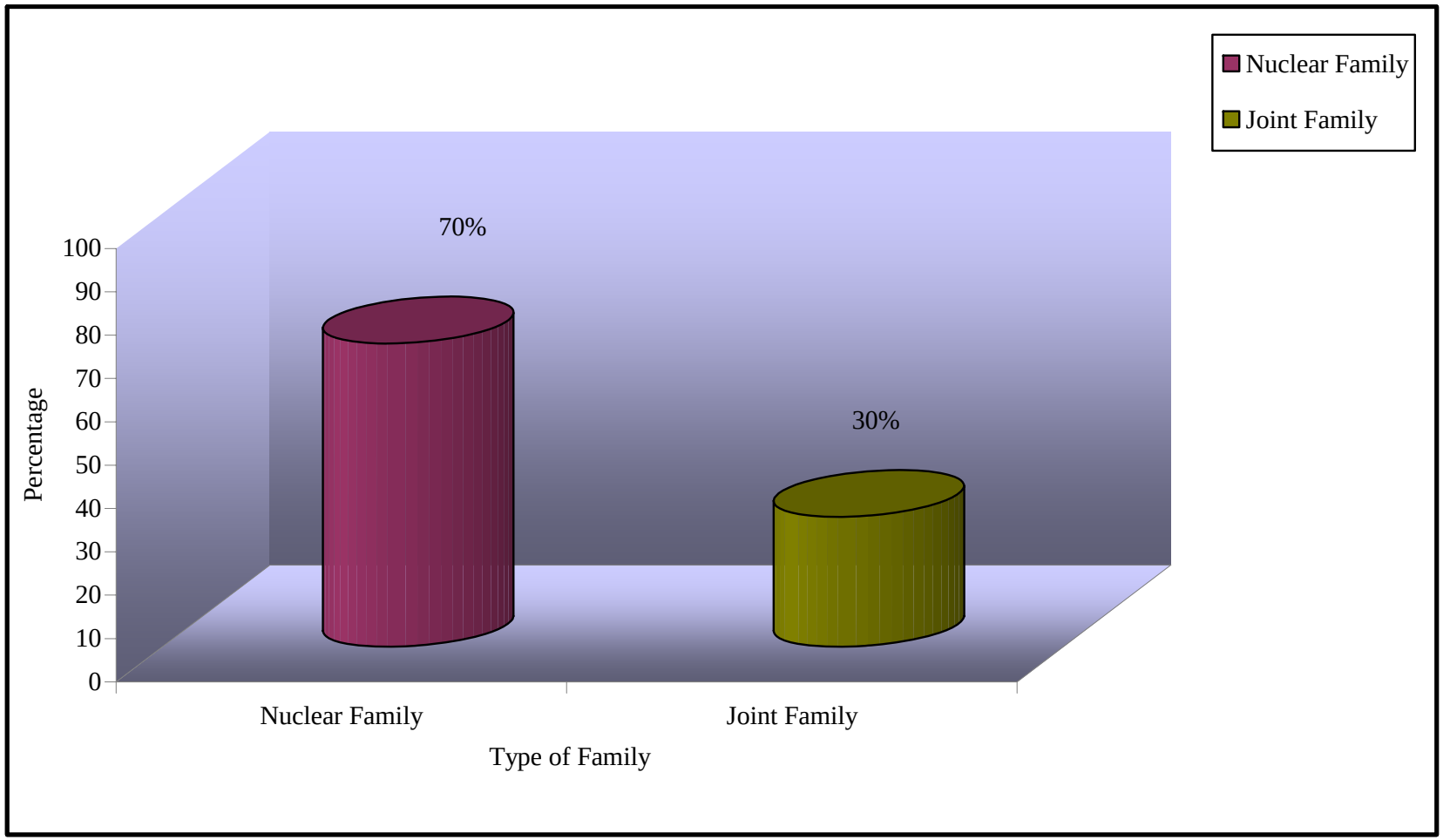

Fig.6: Percentage distribution of type of family of mothers with high risk newborn.

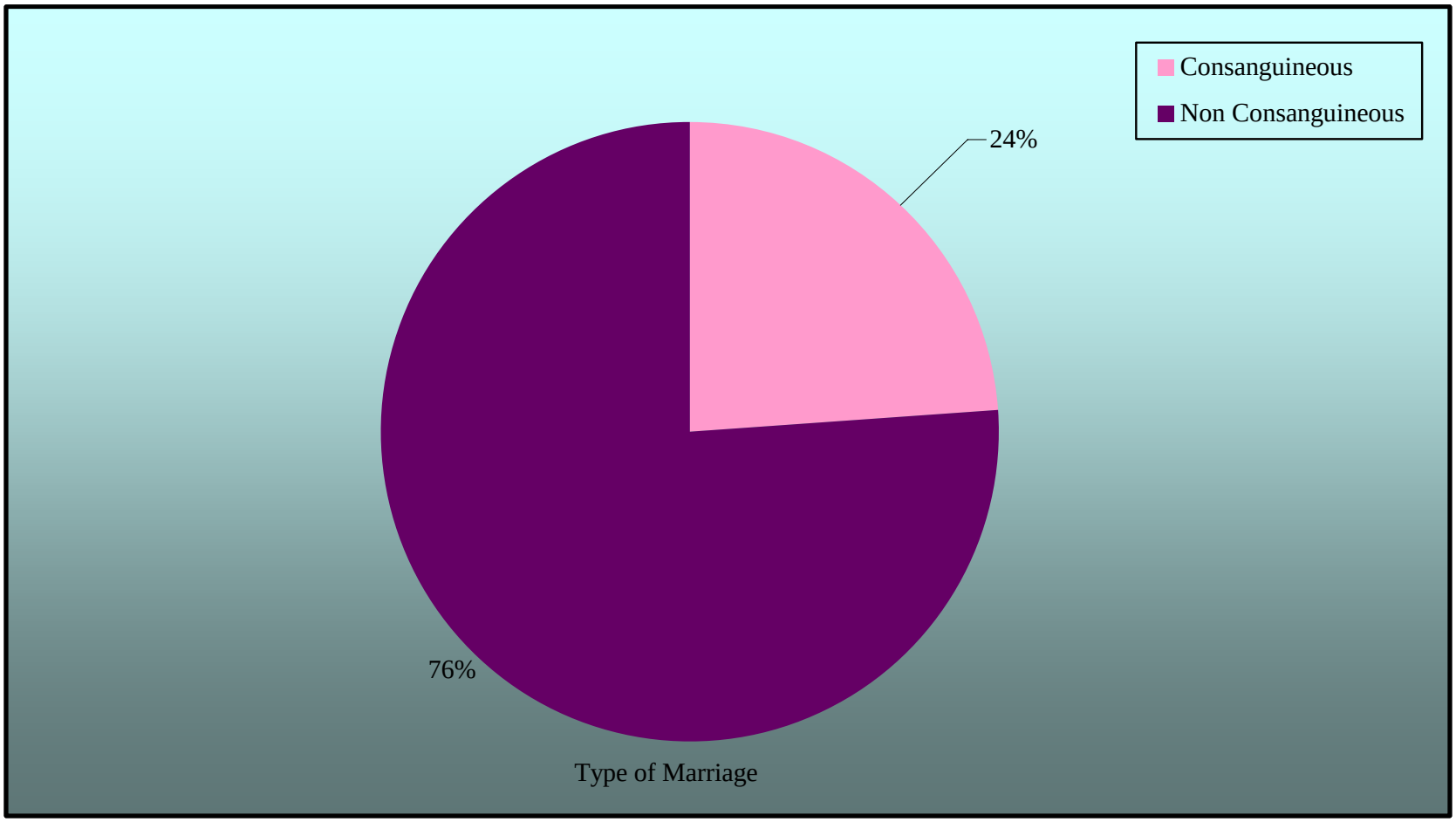

Fig.7: Percentage distribution of Type of marriage of mothers with high risk newborn.

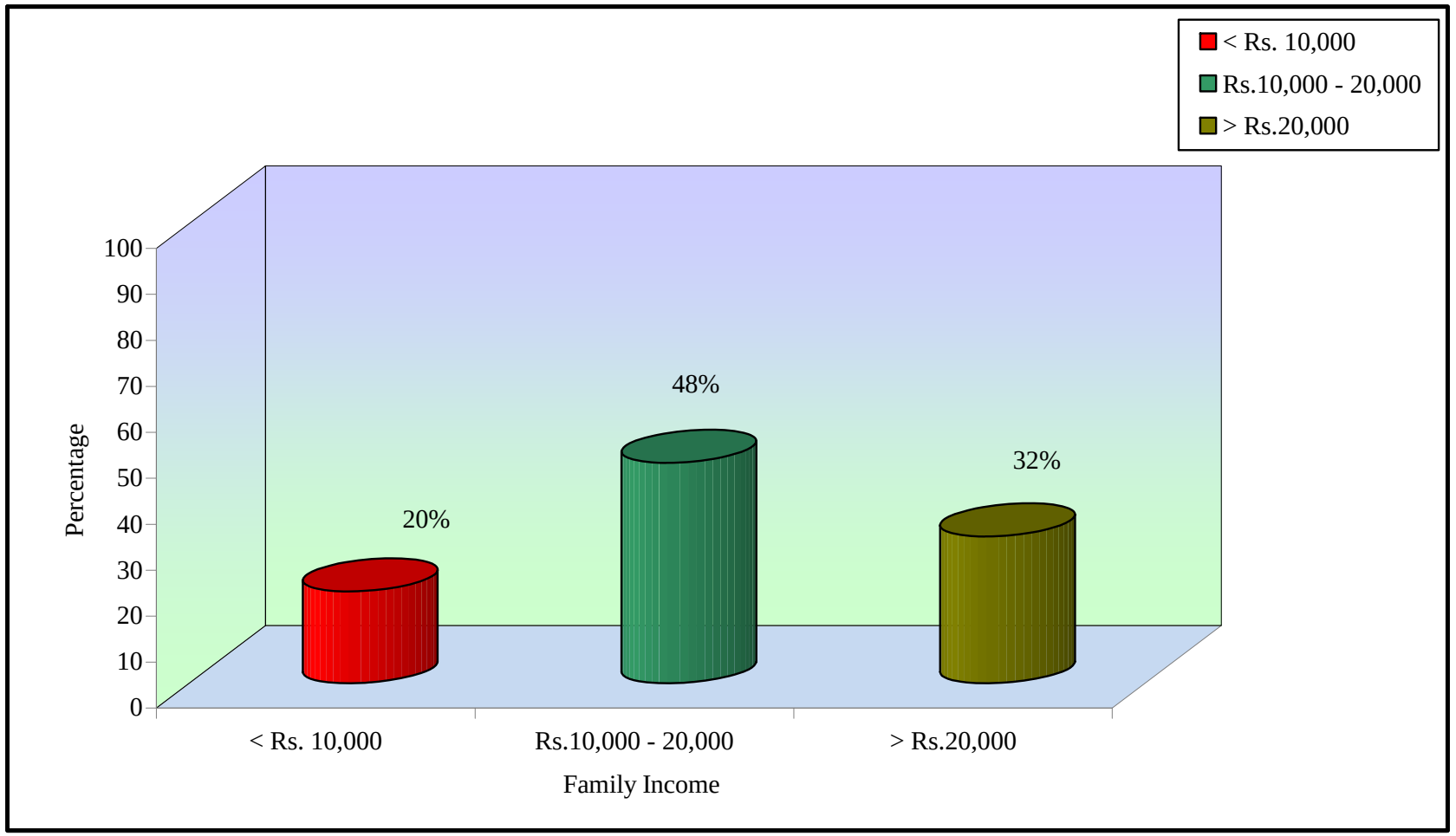

Fig.8: Percentage distribution of family income of mothers with high risk newborn.

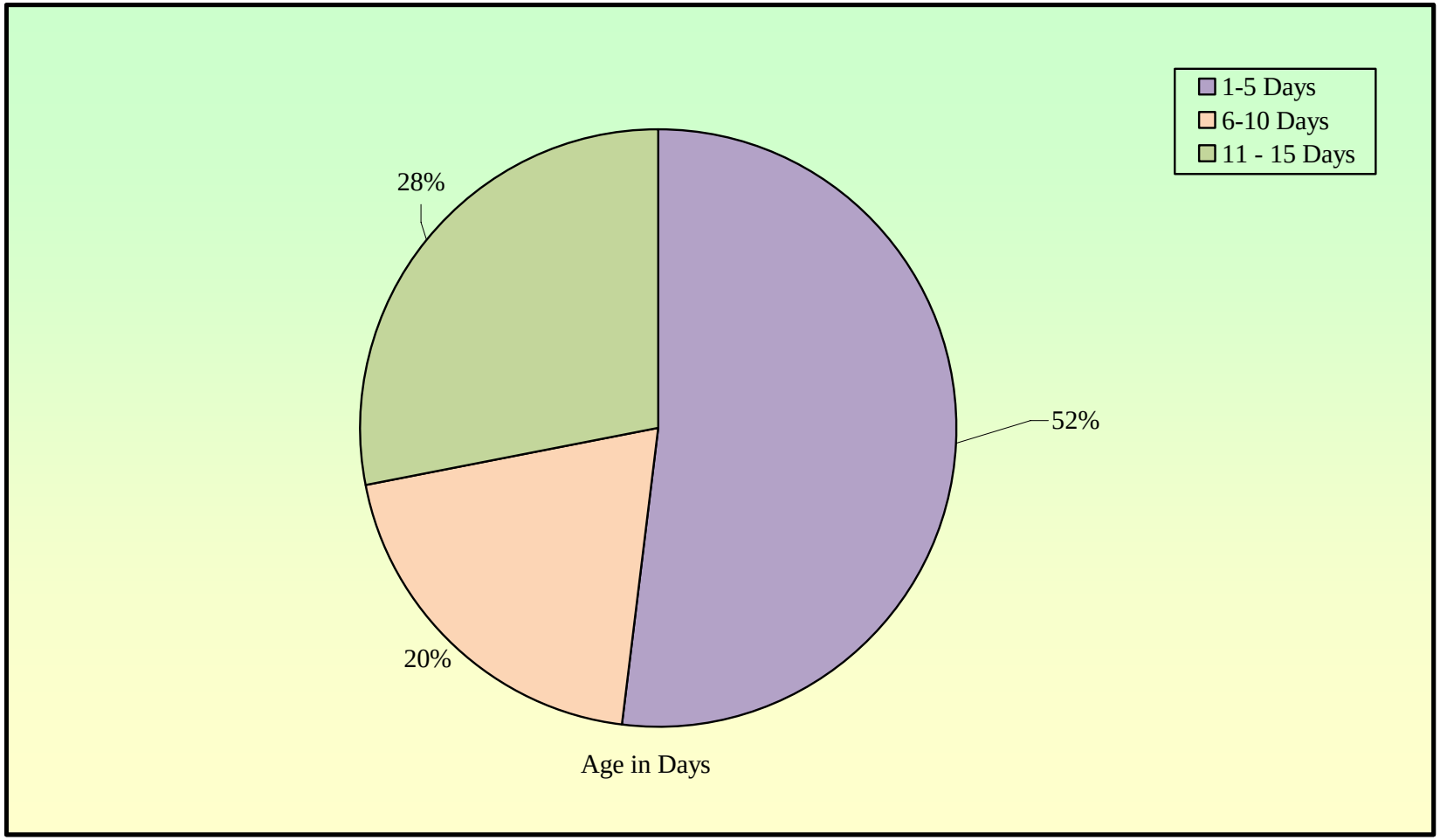

Fig.9: Percentage distribution of age of high risk newborn.

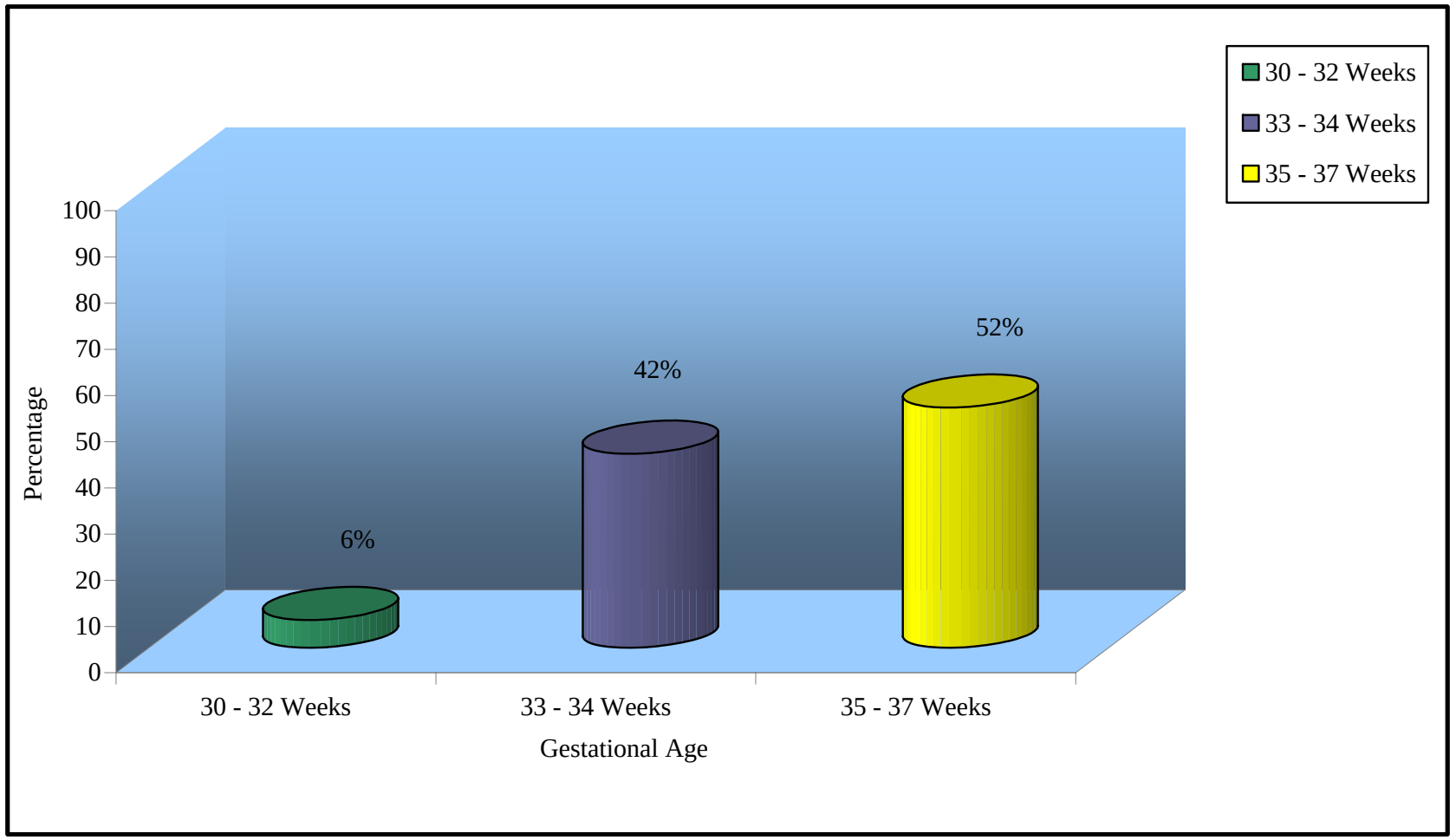

Fig.10: Percentage distribution of gestational age of high risk newborn.

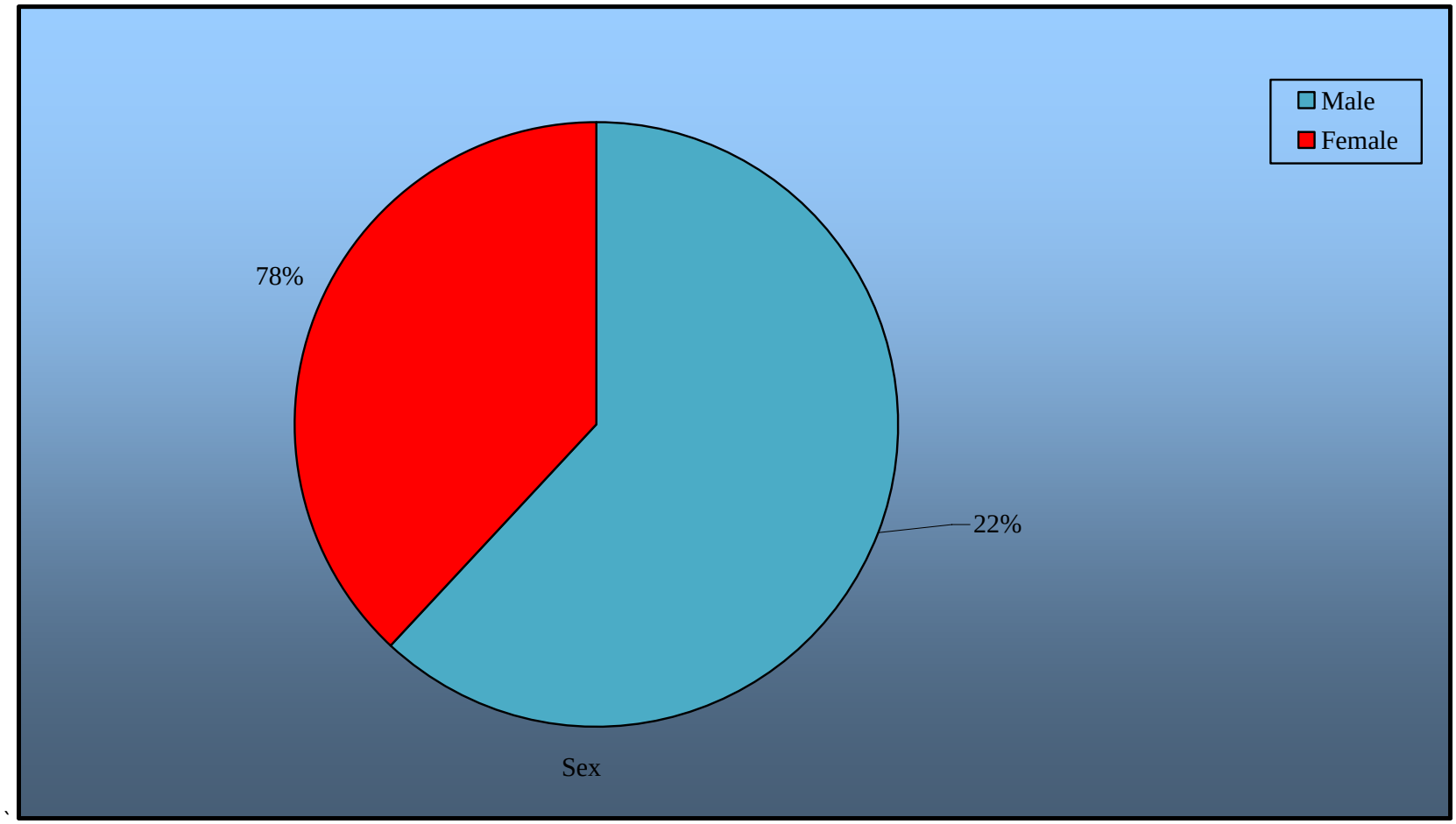

Fig.11: Percentage distribution of sex of the high risk newborn.

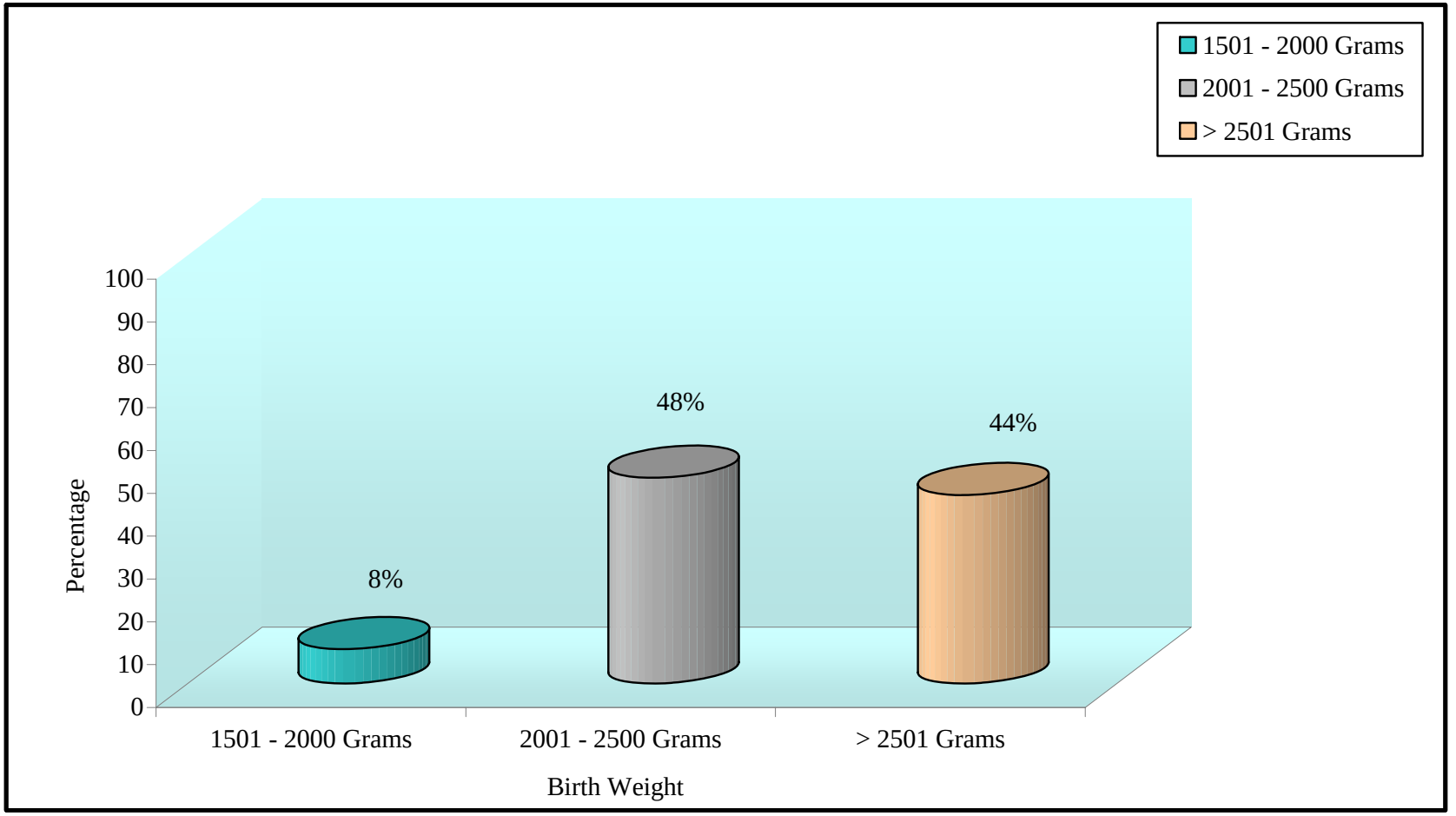

Fig.12: Percentage distribution of birth weight of the high risk new born

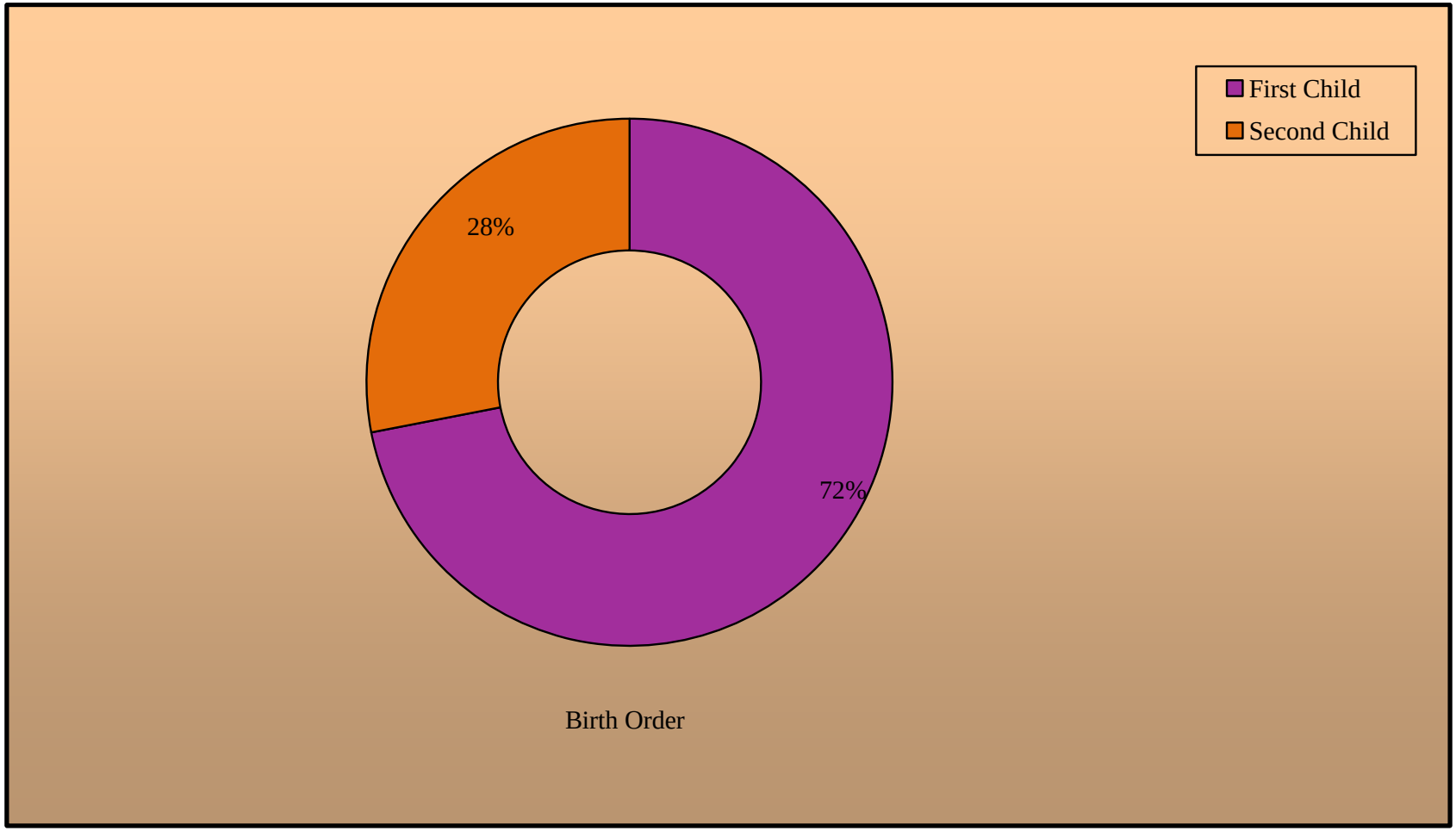

Fig.13: Percentage distribution of birth order of the high risk newborn

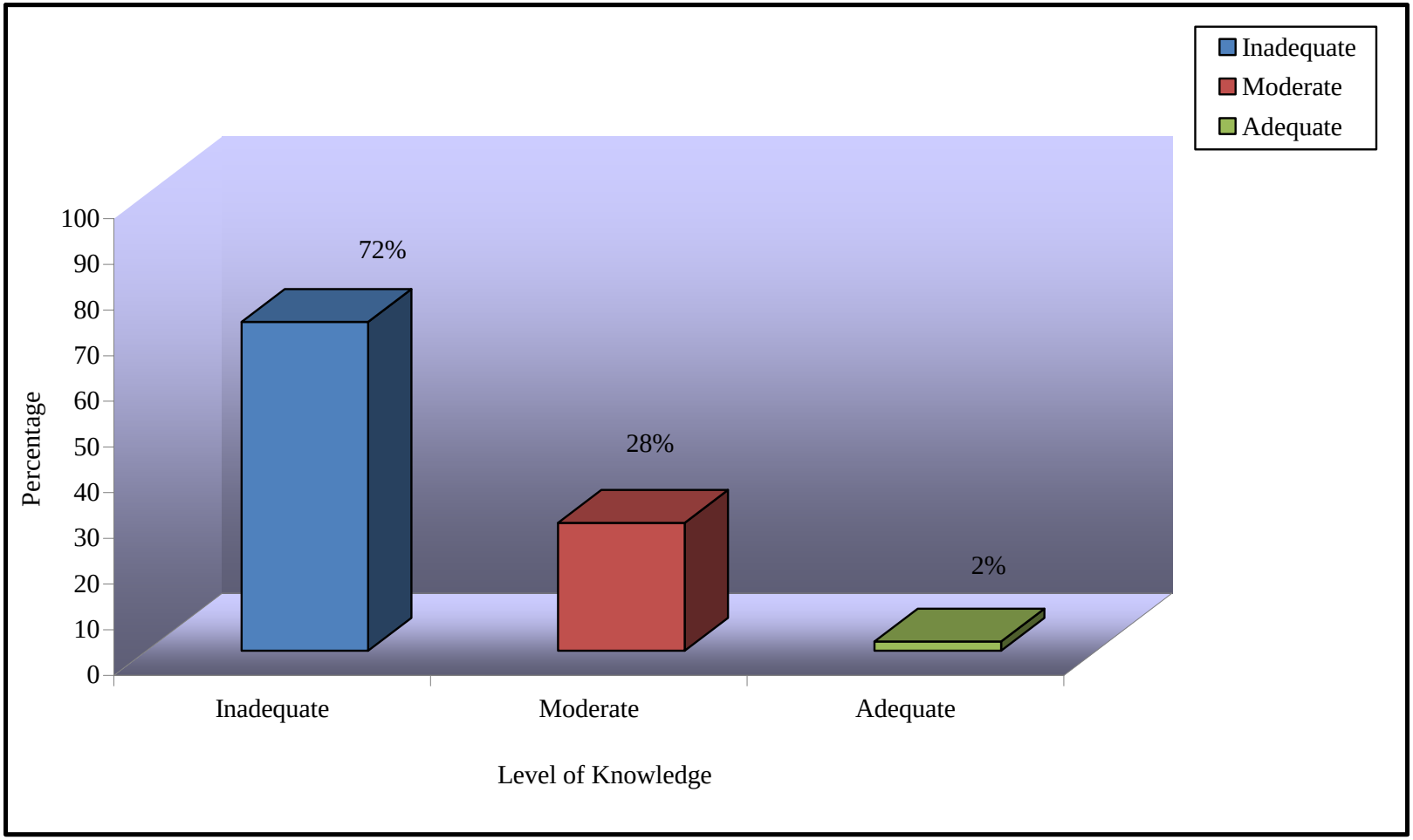

Fig.14: Percentage distribution of pre test level of knowledge among mothers with high risk newborn.

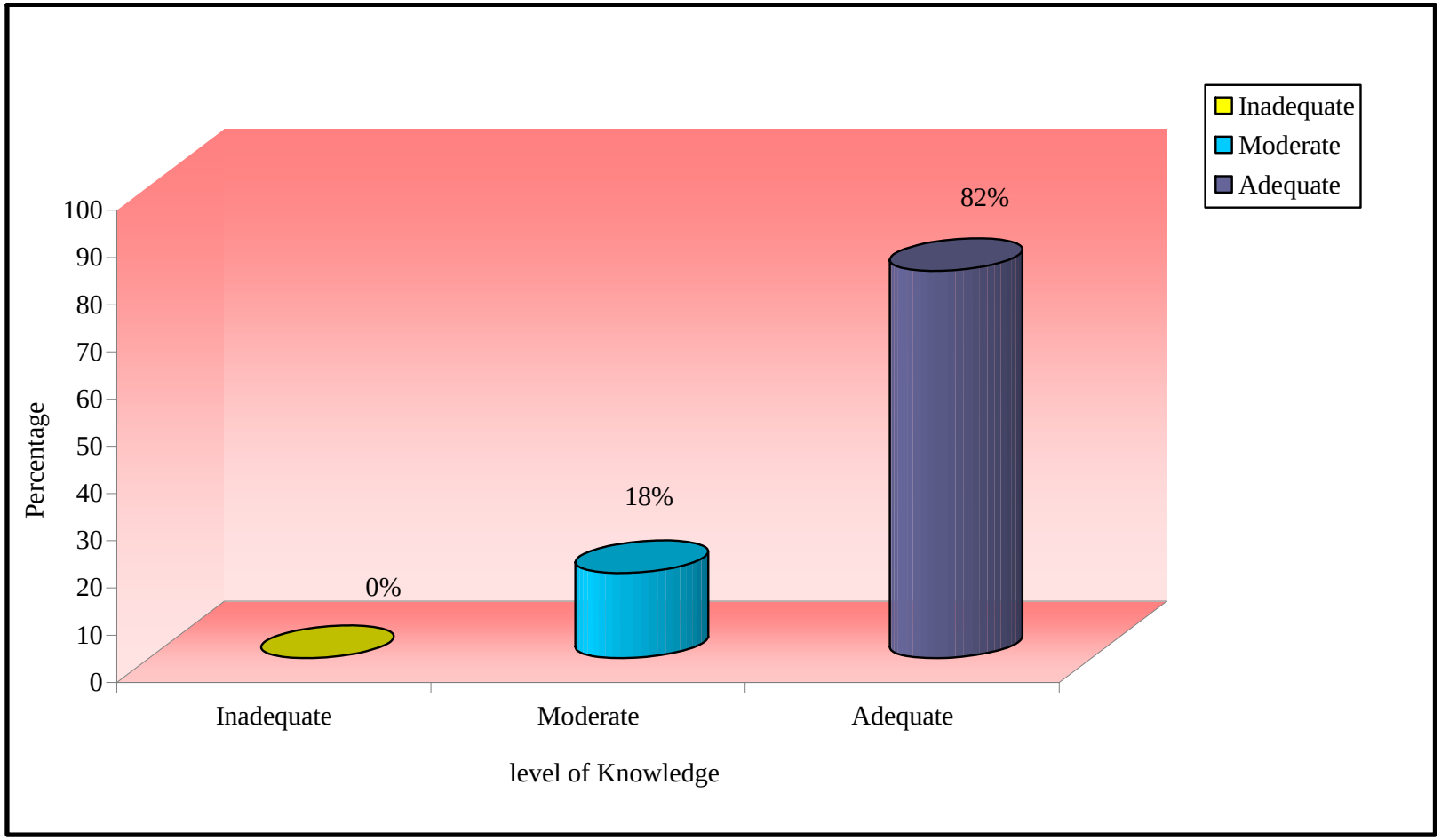

Fig.15: Percentage distribution of post test level of knowledge among mothers with high risk newborn.

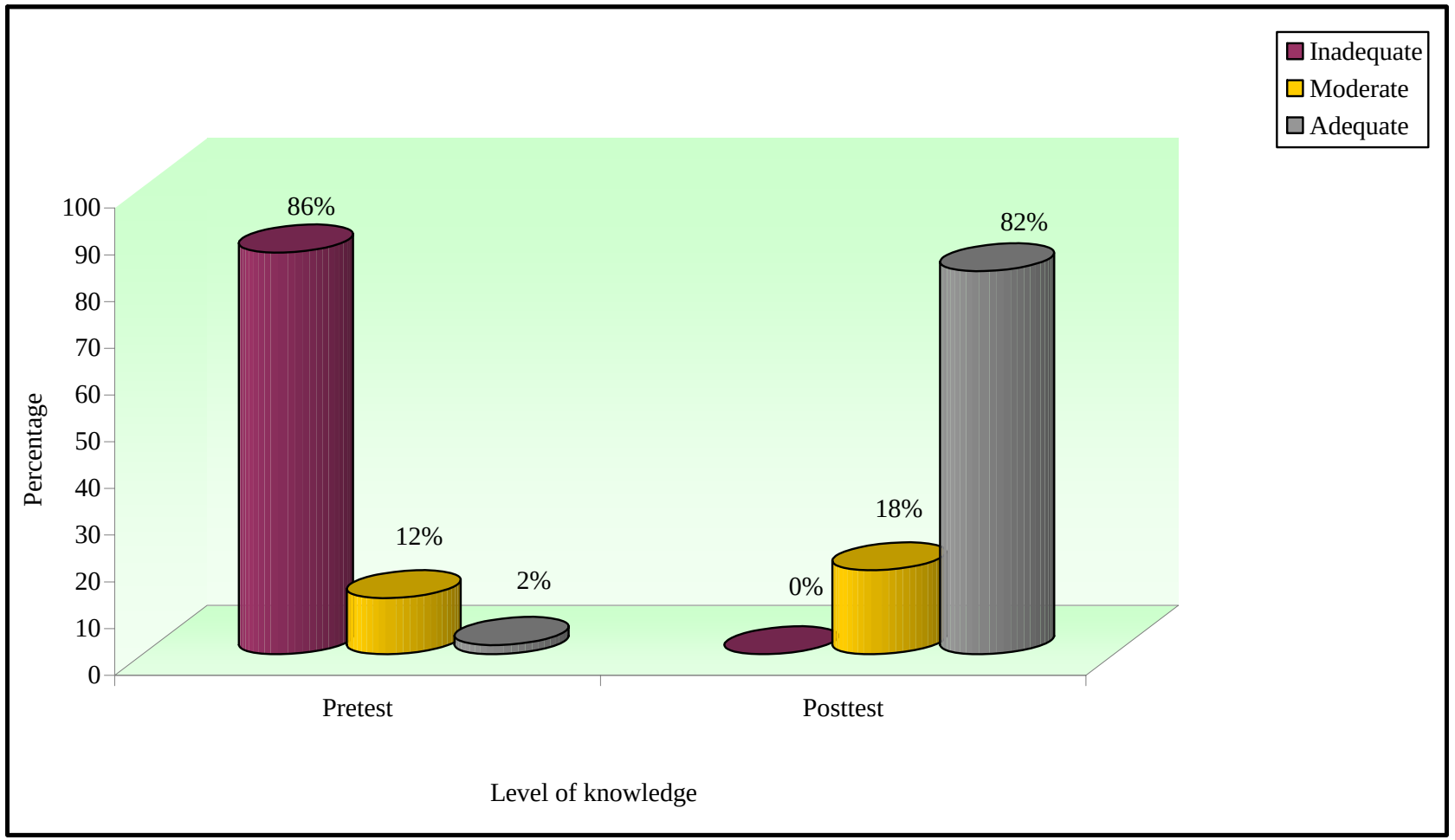

Fig.16: Percentage distribution pretest and post test level of knowledge among mothers with high risk newborn.

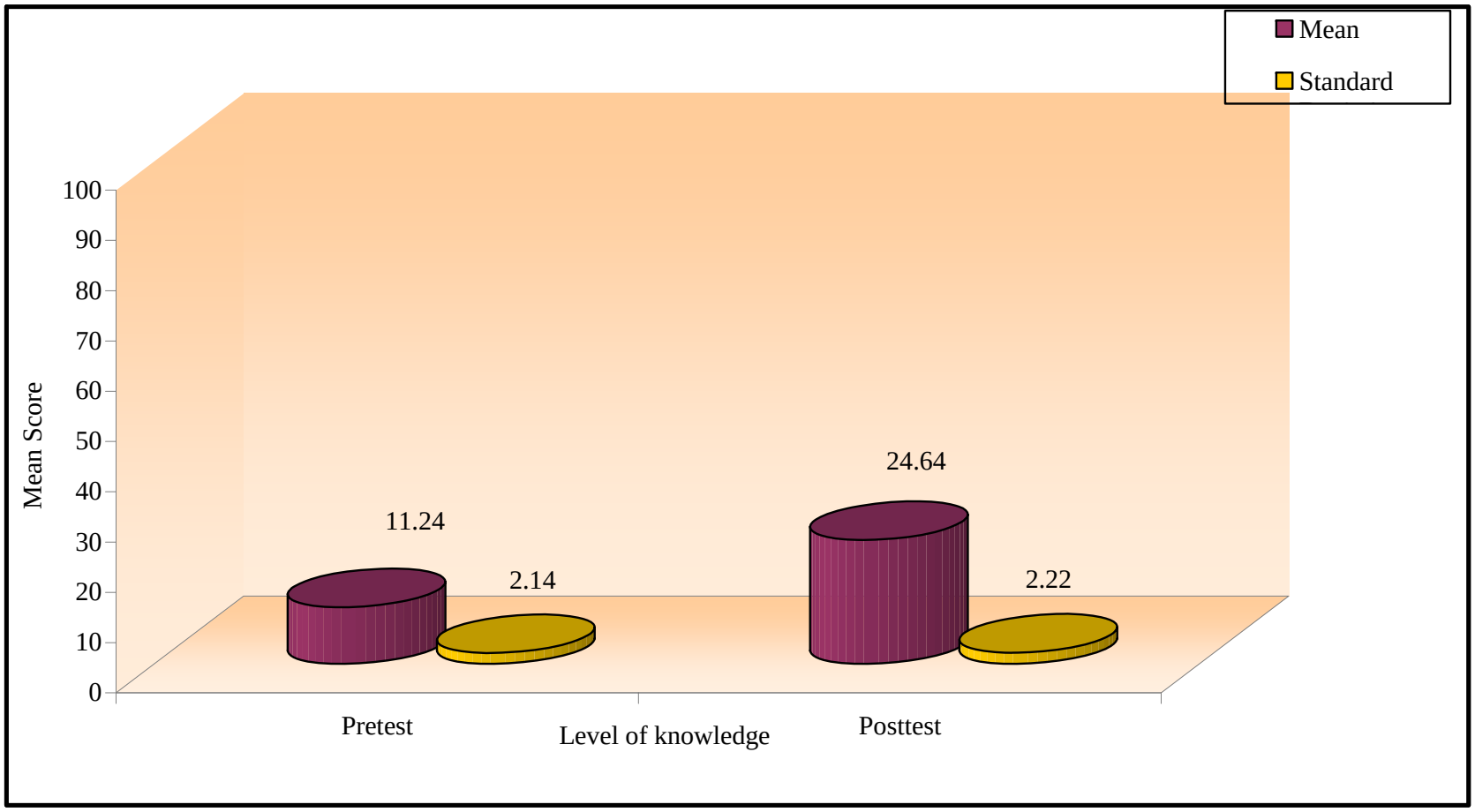

Fig.17: Comparison of mean and standard deviation between pre test and post test level of knowledge regarding home care management of high risk newborn among mothers.

APPENDIX - A

PART I

DEMOGRAPHIC DATA

Mother profile

1) Age of the mother

a) 16-20 years.
b) 21-25 years.
c) 26-30 years.
d) 31-35 years.

2) Education of the mother

a) Primary-secondary.
b) Under Graduate level.
c) Post graduate level.

3) Mode of delivery

a) Normal vaginal delivery.
b) LSCS.

4) Type of family

a) Nuclear.
b) Joint family.

5) Type of marriage

a) Consanguineous marriage.
b) Non consanguineous marriage.

APPENDIX – B

CONSENT LETTER

Letter seeking consent of the subjects for the participation in the research study.

I am voluntarily willing to participate in the study conducted by Ms.Nalini.T, on “a study to assess the effectiveness of information education communication package on knowledge regarding home care management of high risk new born among mothers in Dr.Mehta’s Hospitals, Chennai.

I will also co-operate with the research in providing necessary information. I was explained that the information provided would be kept in confidential and used only for above mentioned study purpose.

Signature of the investigator **Signature of the Participant**

APPENDIX – D

List of Experts for Content Validity

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