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## RESEARCH ARTICLE

# A STUDY TO ASSESS THE KNOWLEDGE ON KANGAROO MOTHER CARE AMONG MOTHERS OF LOW BIRTH WEIGHT BABIES AT JIPMER HOSPITAL, PUDUCHERRY

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**ABSTRACT**

**Introduction:** Babies with the birth weight of less than 2500gm, irrespective of the period of their gestation are classified as low birth weight babies. About 25 to 30 % of babies in India are low birth weight babies. According to the census provided by the WHO in the year 2010, approximately 6 to 8 million low birth weight infants are born in India annually; it is not possible to offer special care to all low birth weight babies.Skin to skin contact (Kangaroo Mother Care) with the mother's bosom provides biologically controlled heat source. Apart from provision of warmth it enhances infant-mother bonding and promotes breast feeding. If normalize infant physiology improves weight gain and provide sense of security to the baby. It has been demonstrated that Kangaroo Mother Care is associated with increased survival and reduced hospital stay. Objectives of the study were to assess the knowledge on Kangaroo Mother Care among the mothers of low birth weight babies at JIPMER and to associate the knowledge regarding Kangaroo Mother Care among the mothers of low birth weight babies with selected demographic variables at JIPMER.

**Methodology:** The cross sectional descriptive research study was conducted among 100 mothers of low birth weight babies in the nursery, pediatric medicine wards, and pediatric surgery wards, pediatric OPD, Neonatal ICU, pediatric ICU, Clean Labor Room and Septic Labor Room of JIPMER Hospital. The subjects were selected by convenient sampling technique. The structured questionnaires were distributed to the Mothers of selected Low birth weight babies to assess their level of knowledge regarding Kangaroo Mother Care after obtaining an informed consent. Self-evaluation technique was used for most of the samples and interview method was used for some samples that were not able to read.

**Results:** This study included majority of Mothers from age group 24 – 27 years of age (50%). The study revealed, majority of the Mothers (57%) had moderately adequate knowledge when compared to mothers who had inadequate knowledge (40%) and who had adequate knowledge (3%) regarding Kangaroo Mother Care.

**Conclusion:** This study concluded that Mothers of Low birth weight babies have a moderately adequate knowledge regarding Kangaroo Mother Care. Analysis also proved that there is no relation between the knowledge and the demographic variables. Health education is an important aspect of nursing practice. Health education can have significant in improving knowledge and practice regarding Kangaroo Mother Care among all the Mothers. A nurse should create awareness among the mass and improve the knowledge regarding Kangaroo Mother Care.



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## INTRODUCTION

Kangaroo Mother Care (KMC) includes thermal care continuous into skin to skin contact support for exclusive breast feeding or appropriate feeding and early recognition, response to the illness whilst increasingly accepted in both high and low income countries, coherence review (2003). Almost 99% of the 4 million neonate (in the 1st four weeks of life) deaths worldwide occur in low and middle union countries although KMC has been promoted service. Its inception as one of the strategies for reducing neonatal mortality is low birth weight (LBW) babies infants coherence receives published in 2000 and 2003 had concluded that there was insufficient evidence to recommend the routine use of KMC is LBW infants (Eugene Toy 2012). Babies with the

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birth weight of less than 2500gm, irrespective of the period of their gestation are classified as low birth weight babies. Approximately, in India alone; 6 to 8 million low birth weight infants are born annually. High incidence of low birth weight babies in our country is accounted for by a higher number of babies with intra uterine growth retardation rather than pre term babies. In the present circumstance, it is not possible to offer special care to all low birth weight babies (AAP 2009).

Birth weight is the single most important marker of adverse prenatal, neonatal and infantile outcome. Over 80% of all neonatal death in both the developed and developing countries. Low birth weight infants have 2-3 times increased risk of mortality due to infection compared to normal birth weight babies after controlling for all the confounding variables. The new developmental seaquake of birth asphyxia are three time in low birth weight babies compared to their normal weight counterpart small for dates babies may remain stunted throughout life leading to impaired physical work capacity. They are more vulnerable to develop atherosclerotic, coronary artery disease, hypertension and diabetes mellitus during adult life (AAP 2009). One of the most critical factors is the survival of low birth weight babies is satisfactory maintenance of their body temperature. A new born baby is physiologically homo thermal and is equipped with a thermostat in the hypothalamus but thermo regularity efforts are often insufficient in pre-term and low birth weight babies. If normal infant physiology improves weight gain and provide sense of security to the baby. Above all, it is likely to provide useful electromagnetic vibration of healing love and compassion from mother to infant. It has been demonstrated that kangaroo mother care is associated with increased survival and reduced hospital stay.

**Statement of the problem**

A study to assess the knowledge on kangaroo mother care among low birth weight baby's mothers at JIPMER, Puducherry.

**Objectives**

- To assess the level of knowledge among the mothers of low birth weight babies regarding kangaroo mother care in JIPMER.
- To correlate the knowledge regarding Kangaroo Mother Care among the mothers of low birth weight babies with selected demographic variables in JIPMER.

**Assumptions**

- Mothers of low birth weight babies may have less knowledge regarding kangaroo mother care.
- Knowledge of mothers of low birth weight babies in giving kangaroo mother care is influenced by various demographic variables.

## MATERIALS AND METHODS

The cross sectional descriptive research study was conducted among 100 mothers of low birth weight babies in the nursery, pediatric medicine wards, and pediatric surgery wards, pediatric OPD, Neonatal ICU, pediatric ICU, Clean Labor Room and Septic Labor Room of JIPMER Hospital. The subjects were selected by convenient sampling technique. The structured questionnaires were distributed to the Mothers of selected Low birth weight babies to assess their level of knowledge regarding Kangaroo Mother Care after obtaining an informed consent. Self-evaluation technique was used for most of the samples and interview method was used for some samples that were not able to read. Score interpretation was Inadequate knowledge = <50%, Moderate knowledge = 51-75%, Adequate knowledge = >75%

**Criteria for selection of samples**

**Inclusion criteria**

Low birth weight babies mothers:

- Who can understand & speak Tamil.
- Who are willing to participate in the study

**Exlusion criteria**

Low birth weight babies mother:

- Who have any psychiatric illness.
- Who are deaf & dumb.

**Ethics and consent**

After getting Human ethical committee clearance and permission from institution and respective units, informed consent has taken from parents of low birth weight babiess and the confidentiality has maintained. The investigator first established a rapport with the parents or care givers. The purpose of the study was explained. It was assured to them that all the data will be kept strictly confidential and used only for this study purpose and obtained the informed consent. Followed the ethical principles and data collection was started.

## RESULTS

**Table 1. Percentage distribution of demographic variables**

| S.No. | Demographic data | Frequency (n) | Percentage (%) |
|---|---|---|---|
| . | Age | | |
| | a) 20 – 23 yrs | 41 | 41% |
| | b) 24 – 27 yrs | 50 | 50% |
| | c) 28 – 31 yrs | 9 | 9% |
| 2. | Type of family | | |
| | a) Joint | 37 | 37% |
| | b) Nuclear | 63 | 63% |
| 3. | Religion | | |
| | a) Hindu | 93 | 93% |
| | b) Christian | 3 | 3% |
| | c) Muslim | 4 | 4% |
| 4. | Domicile | | |
| | a) Rural | 56 | 56% |
| | b) Urban | 44 | 44% |
| 5. | Occupation | | |
| | a) Non working | 70 | 70% |
| | b) Working | 30 | 30% |
| 6. | Income | | |
| | a) 1000 – 5000 | 78 | 78% |
| | b) 6000 – 10000 | 17 | 17% |
| | c) Above 10000 | 5 | 5% |
| 7. | Type of marriage | | |
| | a) Consanguineous | 27 | 27% |
| | b) Non consanguineous | 73 | 73% |
| 8. | No. of children | | |
| | a) One | 36 | 36% |
| | b) Two | 59 | 59% |
| | c) Three | 5 | 5% |

**Table 2. Level of knowledge regarding Kangaroo Mother Care among mothers of low birth weight babies**

| Level of knowledge | Frequency (n=100) | Percentage distribution (%) | Mean± S.D |
|---|---|---|---|
| Inadequate (1 – 50) | 40 | 40% | 12.43±3.84 |
| Moderately adequate (51 – 75) | 57 | 57% | |
| Adequate (76 – 100) | 3 | 3% | |

**Table 3. Association between demographic variables and knowldege of mothers on kangaroo mother care**

| S.No. | Category | n | Mean | S.D | F value | p value |
|---|---|---|---|---|---|---|
| 1. | Occupation | 70 | 10.8 | 3.2 | 1.04 | 0.86 |
| | Non working | 30 | 10.7 | 3.3 | | |
| | Working | | | | | |
| 2. | Income | 78 | 10.6 | 3.3 | 0.17 | 0.84 |
| | 1000 – 5000 | 17 | 11.5 | 2.9 | | |
| | 6000 – 10,000 | 5 | 11.4 | 3.4 | | |
| | Above 10,000 | | | | | |
| 3. | Religion | 3 | 11.3 | 2.5 | 0.51 | 0.60 |
| | Christian | 93 | 10.7 | 3.2 | | |
| | Hindu | 4 | 11.3 | 3.9 | | |
| | Muslim | | | | | |
| 4. | Age | 41 | 10.4 | 3.3 | 0.29 | 0.75 |
| | 20-23 yrs | 50 | 10.9 | 3.0 | | |
| | 24-27 yrs | 9 | 11.9 | 3.8 | | |
| | 28-31 yrs | | | | | |
| 5. | Type of marriage | | | | | |
| | Consanguineous | 27 | 10.1 | 3.5 | 0.77 | 0.38 |
| | Non consanguineous | 73 | 11.0 | 3.1 | | |

Table 1showed that the study included majority of people in the age group of 24 – 27 yrs (50%), Nuclear family (63%), Hindus (93%), rural population (56%), Non working (70%), income of 1000 – 5000 (78%), non consanguineous marriages (73%), No. of children two (59%). Table 2 revealed that majority of the subjects had moderately adequate knowledge about Kangaroo Mother Care. However the knowledge score between various levels is insignificant. (p=0.01). Table 3 showed that there is no significant relationship between the knowledge of the mothers of low birth weight babies and the demographic variables.

## DISCUSSION

The first objective was to assess the level of knowledge regarding Kangaroo mother care among mothers of low birth weight babies and results revealed that majority of the subjects had moderately adequate knowledge about Kangaroo Mother Care. However the knowledge score between various levels is insignificant. (p=0.01). Adequate knowledge was found among 3% of samples when compared to moderately adequate knowledge of 57% and adequate knowledge of 40%. The second objective was to find out the association between the selected variables and the level of knowledge regarding Kangaroo Mother Care and showed that there were no significance between the knowledge regarding kangaroo mother care with any of the selected demographic variables. Nirmala, Swarna Rekha, Maryann Washington (2006) conducted a study on Kangaroo Mother Care: Effect and perception of mothers and health personnel which concluded that Perceptions of mothers and health personnel were positive towards KMC. This method is feasible, with limited infrastructure and equipment required for its implementation. Sandeep Kandam et al. (2005) conducted a randomized controlled trial (2005) on Feasibility of kangaroo mother care in Mumbai. This study concluded that KMC is a simple and feasible intervention acceptable to most mothers admitted in hospitals. There may be benefits in terms of reducing the incidence of hypothermia with no adverse effects of KMC demonstrated in the study. The present study has important implications in the care of LBW infants in the developing countries, where expensive facilities for conventional care may not be available at all place. The study concluded that most of the study participants had moderately adequate knowledge regarding Kangaroo mother care and it is found to be increasing in mothers from urban areas and in mothers with 3 children.

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