ORIGINAL RESEARCH PAPER
Volume - 11 | Issue - 08 | August - 2022 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

A STUDY TO EVALUATE THE EFFECTIVENESS OF KANGAROO MOTHER CARE ON LOW BIRTH WEIGHT BABIES

Nursing

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ABSTRACT

Objectives: To Determine effect of kangaroo mother care on promotion of temperature regulation, weight, Latch and Arousal regulation of LBW babies, Determine the to determine the effect of kangaroo mother care on low birth weight babies and their mothers in experimental group versus control group, and to find an association between the effect of Kangaroo mother care on low birth weight babies of experimental group and their mothers with selected demographic variables. **Methodology:** Kangaroo Mother Care is an effective way to meet Low Birth weight babies Warmth, breast feeding, Latch, Arousal regulation and well being The present randomized controlled trial was conducted among the 50 LBW babies of Devamatha hospital, Koothattukulam. Babies were randomized into KMC and CMC group with 25 babies in each group. **Results:** There is good effect of KMC from first day in Arousal, Latch and temperature regulation as compared to CMC. **Conclusion:-** KMC is cost effective, most acceptable and human method of caring for LBW babies.

KEYWORDS

Kangaroo Mother Care, Low Birth weight babies, latching.

INTRODUCTION

Caring for LBW infants imposes a heavy burden on poor countries; an effective healthcare technique developed in 1978 may offer a solution to this problem and additionally be of use in wealthy countries too KMC is a special way of caring of LBW babies. It fosters their health and well being by promoting effective thermal control breast feeding, infection prevention and bonding. In KMC, the baby is continuously kept in skin to skin contact by the mother and breastfeed exclusively to the almost extent. KMC is initiated in the hospital and continued at home. The two components at KMC care.

1)Skin to skin contact: Early continues and prolonged skin to skin contact between the mother and her baby is the basic component at KMC. The infant is placed a mother's chest between the breast.

2)Exclusive breast feeding: The baby on KMC is breastfeed exclusively skin to skin contact promotes lactation and facilitates the feeding interaction KC is a scientifically sound and socially acceptable method.

The name KMC has arised because the kangaroo's babies are also prematures and their full growth and development occurs in the mothers kangaroo's pouch. One teat is attached to the pouch and it nourishes joy by mother's milk. The mother is the responsible person to take care of her baby and to meet the specific basic needs of the baby, which includes low, touch, warmth, safety and security, KC is believed to be beneficial to both infants and parents.

Gathwala, Singh, Balhara (2008) conducted a study based on the theory that kangaroo care facilitates parent baby attachment in low birth weight infants, a randomized controlled trial done. The Neonates were randomized into a kangaroo care group and a control group in multiple trials. The kangaroo care group was subjected to this care at least 6 hours per day and received care after shifting out from the NICU and into the home setting, while the control group received the standard incubator care until discharge. At a 3 months follow-up appointment, an interview was conducted to assess attachment between parents and their babies. With these researchers concluded, their attachment rate was significantly higher than that obtained in the control group.

Mary Margarette, Kisten (2005) conducted a study on Skin-to-skin parental contact with infants to identify the improvement of physiologic parameters of infants. Skin-to-skin contact has been implemented recently to facilitate bonding of infants. The technique allows the infants to rest on the bare chest of a parent or caretaker. They illustrate a case in which a pre term infant has skin-to-skin contact while being monitored for physiologic parameters, including heart and respiratory rate, oxyhemoglobin saturation, and nasal air flow. They concluded that Improvements in breathing patterns in this infant during kin-to-skin care and improvement of a normal temperature suggest that this technique may not only be safe and psychologically beneficial, but it may also promote physiologic improvement.

Erlandsson Kerstin. Paternal (2007) studied on paternal skin to skin contact offers caesarean-born baby same calming and development benefits same as mother as a mother. The sample was 29 Father-infant pairs, full-term healthy newborns born by planned Caesarean section were randomized to be placed either skin-to-skin on their father's chest or beside their father in a crib. The infants in the skin-to-skin group stopped crying and were calmer compared to infants in the crib group. A father should therefore be regarded as the primary caregiver for the baby when a mother is not available immediately following a birth. This study shows that a Father can soothe his Newborn as effectively as a mother, and more effectively than if the baby is placed in a crib during the first two hours after birth.

MATERIALS AND METHODS

The present randomized controlled trial was conducted among the 50 LBW babies of Krishna hospital, Karad, Babies were randomized into KMC and CMC group with 25 babies in each group. An evaluative research

RESULTS

KMC and Arousal regulation

In the present study there is significant effect on state of Arousal regulation of LBW babies in KMC compared to CMC group as p is 0.0532

Table 1: Group Wise mean median, SD of Arousal regulation in LBW babies

Group	Particulars	Day I	Day II	Day III	Day IV	Friedman test (P.Value)
C M C	Mean ±SD	3.2 ± 1.47	3.8 ±1.80	3.5 ±1.71	2.2 ±1.16	16.071 (0.0011)
	Median	3.00	3.00	4.00	2.00	
K MC	Mean ±SD	2.4 ± 1.41	2.6 ±1.82	1.8 ±1.33	2.0 ±1.86	4.514 (0.2110)
	Median	2.00	2.00	2.00		
Mann/Whitney test value P. value	213 0.0532	177.00 0.0084	121.50 0.0002	185.00 0.0133		

The findings of the table reveal that there is constant reduction in state of Arousal regulation from Day first to Day fourth in CMC group as significance effect of CMC

KMC and Latch

In the present study there is a good Latch and profuse formation milk secretion even on first day of skin to skin contact as p is <0.0001 and also ignition of direct breast feed was earlier in the KMC group compared to CMC group .The findings indicate that KMC enhances promotion of breast feeding.

Table 2: GroupWise mean median, SD of Latch in LBW babies

Group	Particulars	Day I	Day II	Day III	Day IV	Friedman test (P.Value)
C M C	Mean ± SD	5.0 ± 1.80	5.8 ± 1.59	6.7± 0.93	6.7± 0.92	34. 668 (< 0.0001)
	Median	5.00	6.00	7.00	7.00	
K MC	Mean ±SD	5.4 ± 1.53	6.7± 1.27	7.2 ± 0.92	7.6 ± 1.10	41.190 (< 0.0001)
	Median	5.00	7.00	7.00	7.00	
Mann / Whitney test value P. value	265 0.3658	210 0.0470	210 0.0464	175 0.0076		

The finding of the table reveals that there is constant increase in Latch score from Day first to Day four on CMC group.

KMC and weight

In the present study there is no significant effect on weight of LBW baby's in KMC compared to CMC group as p is 0.2589. It may be because of the physiological changes in the first week of birth.The findings of the table reveal that there is no significant effect on weight in KMC.

KMC and Temperature

The findings of the table reveals that there is constant temperature but it is less than normal temperature and no significant in temperature. In the present study it was observed that temperature regulation was more stable in the KMC group and this difference when compared to the CMC group and this difference was statistically significant.

DISCUSSION

In present study there is significantly decrease in Arousal state from the first day in KMC as compared to CMC. Similar findings of the cerebral oxygenation response during Kangaroo mother care in low birth weight babies conducted by Esmot A et al shoes that Baby with KMC is quiet sleep states.

In present study mother were having initially decreased milk production felt that after giving KMC there was increase in their milk production. Similar findings an open randomized controlled trial in bogata Colombia, has demonstrated increased duration as well as increased milk production in mothers giving KMC.

Nursing Implication:

a)Nursing Practice

The practice of kangaroo mother care needs to be encouraged in all postnatal wards, NICU and can be continued by the mother at home.

b)Nursing Administration

The findings of the study will help the nurse administrator to organize more workshops, panel discussion, short-term refresher courses and health education programme for nurses.

c)Nursing Research

Research suggests that early skin to skin contact is key to successful breastfeeding initiation it uses immediately after birth is rare.

d)Nursing Education

The institutes of nursing education should play an active role in conducting in-service education programme, workshops and continuing education programmes to educate nursing personnel of the hospital regarding kangaroo mother care

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