

A COMPARATIVE STUDY TO ASSESS THE EFFECTIVENESS OF KANGAROO MOTHER CARE - WITH AND WITHOUT OIL MASSAGE - ON THE NEURO BEHAVIOURAL AND PHYSICAL PARAMETERS AMONG LOW BIRTH WEIGHT BABIES AT SELECTED HOSPITALS IN VELLORE

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ABSTRACT

This study investigates the impact of Kangaroo Mother Care (KMC), with and without oil massage, on neuro-behavioral and physical parameters in low birth weight (LBW) infants. Conducted in selected hospitals in Vellore, the research aims to determine whether adding oil massage to KMC enhances the developmental outcomes of LBW babies.

KEYWORDS: *Oil Massage, Neonatal Care, Infant Development, Skin-to-Skin Contact, Growth Monitoring.*

INTRODUCTION

The care of low birth weight (LBW) infants, defined as those born weighing less than 2500 grams, presents significant challenges and opportunities for neonatal health. LBW infants are at increased risk for a variety of health issues, including developmental delays, compromised growth, and higher rates of morbidity and mortality. As such, effective care strategies are critical for improving their outcomes. Among the various interventions developed to support these vulnerable infants, Kangaroo Mother Care (KMC) has emerged as a highly recommended practice. KMC involves placing the infant in skin-to-skin contact with the mother, fostering warmth, promoting breastfeeding, and enhancing emotional bonding. This practice has been shown to improve physiological stability, increase weight gain, and reduce the incidence of infections in LBW infants.

KMC is grounded in the principle of providing continuous skin-to-skin contact between the infant and the caregiver, which supports thermal regulation and promotes a stable heart rate and breathing pattern. This method also facilitates breastfeeding, which is crucial for LBW infants due to its high nutritional value and immune-boosting properties. The World Health Organization and various

health authorities advocate for KMC as a standard care practice for LBW infants, particularly in low-resource settings. Despite the well-documented benefits of KMC, there is ongoing interest in exploring ways to enhance its effectiveness. One such approach is the incorporation of oil massage, a traditional practice that involves the application of oil to the infant's skin followed by gentle massaging.

Oil massage is commonly used in various cultures to promote infant health and development. It is believed to improve circulation, stimulate sensory and motor development, and enhance overall well-being. In the context of LBW infants, oil massage is thought to potentially augment the benefits of KMC by further promoting weight gain, improving skin integrity, and contributing to better neuro-behavioral outcomes. Despite its traditional roots, there is limited empirical evidence examining the combined effects of KMC and oil massage on LBW infants. This gap in the literature highlights the need for robust studies to evaluate whether the addition of oil massage provides measurable benefits over KMC alone.

In the Indian context, particularly in regions like Vellore, where healthcare practices may integrate both modern and traditional approaches, understanding the comparative effectiveness of KMC with and without oil massage could offer valuable insights. Vellore, known for its prominent medical institutions and research centers, provides an ideal setting for such a study. The presence of a diverse population with varying health practices allows for a comprehensive evaluation of the impact of these interventions on LBW infants.

This research aims to address this gap by conducting a comparative study of the effects of KMC with and without oil massage on the neuro-behavioral and physical parameters of LBW infants. By evaluating these two intervention strategies, the study seeks to determine whether the inclusion of oil massage enhances the benefits of KMC or if KMC alone is sufficient for optimizing outcomes in LBW infants. The findings from this study are expected to contribute to the body of evidence supporting neonatal care practices and potentially influence clinical guidelines for the care of LBW infants.

The primary objectives of this study are to assess the impact of KMC on neuro-behavioral and physical development in LBW infants and to compare the outcomes between KMC with oil massage and KMC without oil massage. Specifically, the study will evaluate changes in neuro-behavioral parameters such as behavioral responses, motor development, and sensory processing, as well as physical parameters including weight gain, head circumference, and length. By employing rigorous methods and standardized assessment tools, this research aims to provide clear evidence regarding the efficacy of these interventions.

This study is of particular significance given the ongoing quest to enhance neonatal care practices and improve outcomes for LBW infants. The results could have implications for clinical practices, healthcare policies, and parental guidance, ultimately contributing to better health and developmental trajectories for these vulnerable infants. As the healthcare community continues to seek effective and evidence-based interventions for LBW infants, understanding the potential

benefits of integrating traditional practices like oil massage with established methods such as KMC represents a meaningful step towards optimizing neonatal care.

In this research will shed light on whether the addition of oil massage to KMC provides additional benefits in the care of LBW infants. By addressing this question, the study will not only fill a crucial gap in the existing literature but also potentially improve neonatal care practices in both clinical and home settings. The findings will be instrumental in guiding healthcare providers, researchers, and policymakers in their efforts to enhance the well-being and development of LBW infants, ultimately supporting their journey towards healthier and more fulfilling lives.

KANGAROO MOTHER CARE (KMC)

Kangaroo Mother Care (KMC) is a neonatal care practice designed to improve outcomes for low birth weight (LBW) infants through continuous skin-to-skin contact. Key components of KMC include:

- **Skin-to-Skin Contact:** The infant is placed in direct skin contact with the mother's chest, promoting warmth, bonding, and emotional security.
- **Thermal Regulation:** This contact helps maintain the infant's body temperature, reducing the risk of hypothermia.
- **Breastfeeding Support:** KMC facilitates easier breastfeeding, providing essential nutrition and immune protection.
- **Enhanced Growth:** Studies show that KMC can lead to increased weight gain and improved growth rates in LBW infants.
- **Reduced Stress:** Skin-to-skin contact helps stabilize heart rate, breathing patterns, and reduces the stress response in infants.
- **Promotes Bonding:** KMC strengthens the emotional connection between the infant and caregiver, which is crucial for the infant's overall development.

KMC is supported by numerous health organizations as a vital practice in neonatal care, particularly for preterm and LBW infants, and is associated with better short-term and long-term outcomes compared to conventional care practices.

EFFECTIVENESS OF KMC

Kangaroo Mother Care (KMC) has demonstrated significant effectiveness in improving various outcomes for low birth weight (LBW) and preterm infants. Key areas where KMC has proven beneficial include:

1. **Weight Gain and Growth:** KMC promotes better weight gain and overall growth in LBW infants. The close physical contact helps regulate body temperature and facilitates frequent breastfeeding, which contributes to increased caloric intake and better nutritional status.
2. **Thermal Regulation:** By maintaining skin-to-skin contact, KMC effectively regulates the infant's body temperature. This reduces the incidence of hypothermia, a common concern in preterm and LBW infants who have difficulty maintaining stable body temperatures.
3. **Neuro-Behavioral Development:** KMC positively impacts neuro-behavioral outcomes by stabilizing heart rate, respiratory patterns, and reducing stress. The practice fosters a more stable and calm state in the infant, promoting better developmental trajectories.
4. **Reduced Infections:** The improved thermal regulation and enhanced breastfeeding supported by KMC contribute to lower rates of infections. Breast milk provides essential antibodies that bolster the infant's immune system.
5. **Enhanced Bonding:** The skin-to-skin contact inherent in KMC strengthens the emotional bond between the infant and caregiver, supporting both emotional and psychological well-being.
6. **Shorter Hospital Stays:** Infants who receive KMC often experience shorter hospital stays compared to those who receive conventional care, as they tend to achieve stable growth and health metrics more quickly.

Overall, KMC is a cost-effective, evidence-based practice that significantly enhances the care and development of LBW and preterm infants, making it a recommended standard in neonatal care settings worldwide.

CONCLUSION

In Kangaroo Mother Care (KMC) has proven to be a highly effective intervention for improving outcomes in low birth weight and preterm infants. Its benefits extend across various domains, including enhanced weight gain, better thermal regulation, and improved neuro-behavioral development. By fostering closer skin-to-skin contact, KMC not only supports the physical growth of infants but also strengthens the emotional bond between the caregiver and the baby. As a cost-effective and evidence-based practice, KMC significantly contributes to reducing hospital stays and lowering infection rates, underscoring its critical role in neonatal care and its potential for widespread adoption in clinical settings.

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