Reducing Early Neonatal Heat Loss in a Low Resourced Context:
An Indian Exemplar

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Abstract

Background Although there has been a favorable trend in the Infant Mortality Rate in India in the last decade, the country is still unlikely to meet the Millennium Development Goal #4. Of significance, there has been minimal improvement in the early neonatal mortality rate, which is an indicator of quality of perinatal care. In the efforts to address this aspect, a range of efforts and interventions have been considered. One such effort is in addressing and reducing hypothermia in neonates. Two low tech strategies, professional mummying/swaddling (PM/S) and ‘Kangaroo mother care’ (KMC), are seen as critical in the continuum of neonatal care.

Objective: This study compared the effects of KMC and professional mummying/swaddling (PM/S) on select neonatal outcomes (temperature and weight) in a postnatal hospital unit in Chennai India.

Methodology: This quasi-experimental study used a repeat measures time series approach monitoring weight and temperatures for neonates across the two interventions.

Results: Significant findings were found in the retention of temperature which indicated that the KMC intervention aligned with higher neonatal temperatures than the PM/S interventions. Further, neither maternal or neonate indicators were found to impact significantly on weight or temperature changes in either group.

Conclusions: KMC was found to provide a viable and meritorious alternative to PM/S as a thermoregulatory strategy for full term neonates in a low resource setting. The study suggest that ongoing research will be necessary to ascertain the optimal approaches and potentials in both methods with such culturally diverse populations.

Keywords: Professional mummying/swaddling; Kangaroo Mother Care; skin-to-skin care; newborn/neonatal mortality rates; India