ORIGINAL PAPER

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

Ramalingam Sindhu, MScN, BScN, RN, RM
Assistant .Professor/Academic Coordinator, Aga Khan University, Advanced Nursing Studies Programme, Uganda.

P.V.Ramachandran, MSc (N)
Chairman, Nursing Education, Sri Ramachandra College of Nursing, Sri Ramachandra Medical College and Research Institute, Porur, Chennai, Tamil Nadu, India

Clara Michael Jothi, MScN, PhD Nursing,
Reader, Department of Obstetrics & Gynaecology Nursing, Sri Ramachandra College of Nursing, Sri Ramachandra Medical College and Research Institute, Porur, Chennai, Tamil Nadu, India

Prof. Susila, MScN, PhD Nursing
Reader, Department of Obstetrics & Gynaecology Nursing, Sri Ramachandra College of Nursing, Sri Ramachandra Medical College and Research Institute, Porur, Chennai, Tamil Nadu, India

Pammla Petrucka, RN, BScN, MN, PhD
Mentor, College of Nursing, University of Saskatchewan, Saskatoon, Saskatchewan Canada

Correspondence: Mrs. Ramalingam Sindhu, Assistant Professor/Academic Coordinator,
Aga Khan University, Advanced Nursing Studies Programme, Uganda P.O. Box: 8842, Kampala, Uganda.
E sindhu.ramalingam@aku.edu sindhu.ramu@gmail.com

Research work carried out: Sri Ramachandra Medical College and Research Institute, Sri Ramachandra University, No: 1 Ramachandra Nagar, Porur, Chennai - 600 116 Tamil Nadu, India

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 meritous 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