

based communication rooted in patient and parent narratives, they collaborate to enhance the well-being of infants, families, healthcare professionals, and hospital communities alike. By nurturing a reciprocal care approach, NICU Parent Leaders

contribute to the restoration and improvement of healthcare systems that once supported them during their own critical journeys.

Investigating the Effect of Held Position During Kangaroo Care on Physiological Parameters of Premature Infants: A Randomised Controlled Trial

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Background

Kangaroo mother care (KMC) is an integral part of neonatal care, with its benefits to babies and families well documented. The position in which the parent holds her baby in KC, is mostly determined by maternal preference in the newborn intensive care unit (NICU). This study aimed to assess whether there is any differences to the babies cerebral oxygen levels, based on the two usual maternal positioning practiced in NICU at Cork University Maternity Hospital (CUMH) (30° or 60° incline position) and if either maternal position is more optimal for performing KMC.

Methods

Single centre cross-over randomised controlled trial in a tertiary newborn intensive care unit. Infants with a minimum corrected gestational age of 28 weeks and minimum 600 grams were included. Participants were randomly assigned to commence KMC, with their mother laying at either a 30° or 60° angle. The primary outcome measure was the median cerebral near-infrared spectroscopy (NIRS) values between the two positional angles. Near-Infrared Spectroscopy (NIRS) oxygen saturation monitoring was chosen as it provides non-invasive, real time, continuous, tissue specific measurements of cerebral oxygen saturation. NIRS monitoring can detect cerebral hypoxia, even when other monitors do not show signs of clinical deterioration.¹ Secondary outcomes were median infant peripheral saturations, median infant heart rates and numbers of significant bradycardia or desaturation episodes during KMC intervention. The results were analysed using the non-parametric Wilcoxon signed rank test.

Results

Twenty participants were included in the final analysis: median gestational age (GA) at birth was 28⁺¹ weeks (range: 23⁺² to 32⁺⁶ weeks) and median birth weight was 0.985kg (range: 0.620kg to 2kg). There were no statistically significant differences ($p = 0.810$) between the median NIRS values at 30° (median rSO₂ = 67.5, IQR = 58.3 – 73.8) and 60° (median rSO₂ = 68, IQR = 60.5 – 76). There were no statistically significant difference in the median peripheral saturations ($p = 1$), or median heart rates ($p = 0.662$) between infants held skin-to-skin at 30° or 60° positions.

Conclusion

Results indicate that maternal positioning at a 30° or 60° incline did not have a significant impact on cerebral oxygenation values in very preterm infants furthermore either position was associated with the infant's clinical stability. Evidence robustly supports implementation of KMC to improve outcomes for the infant and families.

Relevance for NIDCAP

As NIDCAP Professionals, when supporting the families in our care with KMC we have to ensure our recommendations are researched based and supporting the best possible outcomes for the infant.

Reference:

1. Vesoulis ZA, Sharp DP, Lalos N, Swofford DP, Chock VY. Cerebral Near-Infrared Spectroscopy Use in Neonates: Current Perspectives. *Research and Reports in Neonatology*. 2024;14:85-95. <https://doi.org/10.2147/RRN.S408536>