

# Kangaroo Care in the Community: A Novel Innovation to Facilitate Ongoing Skin to Skin Contact

Roisin Bailey <sup>1</sup>  @midwifephd

Supervised by:

Dr. Helen McIntyre DHSci. <sup>2</sup>

Prof. Merryl Harvey PhD. <sup>3</sup>

Birmingham City University <sup>123</sup>

## Key Features of Kangaroo Care

- Early, continuous, and prolonged skin to skin contact
- Ideally exclusive breastfeeding
- Support and follow-up in the community

## Kangaroo Care Research

Kangaroo care has been shown to reduce neonatal morbidity and mortality in low birth weight and premature babies.<sup>4</sup> Research with healthy term babies has shown skin to skin contact supports bonding, breastfeeding, and thermoregulation.<sup>5</sup> Despite this, there is a lack of research to inform midwives on how best to support mothers to have ongoing plentiful skin to skin contact with their babies.

## The Innovation: Skin to Skin Garment

A garment has been developed at Birmingham City University to support babies in a kangaroo care position on the mother's chest for extended periods of time as a skin to skin contact facilitation strategy.

## Recruitment and Study Criteria: Healthy Population

Eleven mother-baby dyads were recruited from a single NHS trust in the West Midlands. Women with singleton high or low risk pregnancies were introduced to the study, excluding those planning a caesarean section.

Postnatally, women and babies meeting eligibility criteria of having a term, vaginal birth of a baby weighing over 2.5kg were invited to participate.

## Research Methodology: Mixed Method

The woman-centred mixed methodology was designed to promote maternal autonomy and decision making, with participating mothers choosing when and where to trial the garment. Data collection relied upon the mothers to interpret their own baby's behaviour, setting the mother as the expert in her baby's care.

Following faculty and NHS ethical approval, data was collected in a single episode at the mother's home in the first 4 postnatal weeks. Maternal participants took and recorded their baby's axilla temperature and assessed their behaviour prior to, and following 30 minutes of skin to skin contact using the facilitating garment.

Direct observation by the researcher generated field notes on maternal nurturing behaviours and infant feeding practices, and recorded verbatim comments on the garment's appearance, fit, and usefulness. Simple word repetition was used to analyse participant comments, and key themes were extracted.



## Findings: Safe, Enjoyable, Supports Responsive Feeding

- Safe neonatal positioning was maintained by all dyads, including avoidance of Developmental Dysplasia of the Hip-associated positions.<sup>6</sup>
- All neonatal temperatures remained in normal parameters.
- Mothers reported positively on using the garment, with 'safe', 'secure', and 'comfortable' as the most frequently used descriptors.
- All eleven mothers increased verbalisations towards their baby on commencement of skin to skin contact, including empathetic questioning and infant-directed speech.
- 8/11 babies exhibited feeding cues during skin to skin contact; 7/11 dyads went on to breastfeed within the garment, and one dyad formula fed, then recommenced skin to skin contact.
- Maternal assessment of neonatal behaviour found the majority of babies (7/11) to be hungry or unsettled prior to skin to skin contact, and 4/11 babies to be settled or asleep. Following 30 minutes of garment facilitated skin to skin contact, all mothers found their babies to be settled or asleep.

## Conclusion: Suitable For a Randomised Controlled Trial

A novel facilitation method to support kangaroo care was well evaluated by women in the postnatal period, and safely maintained neonatal position and thermoregulation.

Women were able to facilitate their infant feeding choice whilst using the garment, and displayed positive nurturing behaviour towards their baby.

A mixed method randomised controlled trial is currently being undertaken to assess the garment's effect on breastfeeding uptake, exclusivity, and continuation, as well as the mothers' experiences of skin to skin contact in the postnatal period.

This further research has scope to inform postnatal care and breastfeeding support, as well as strategies to promote responsive feeding for both breastfeeding and formula feeding dyads.