



The Effects of Kangaroo Care on Pain Relief in the Preterm Infant

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What is Kangaroo Care?

Kangaroo care is “early, continuous and prolonged skin to skin contact between the mother and the baby” (WHO 2003).

It is a non-pharmacological comfort measure which is thought to reduce pain by reducing the feeling of disorganisation in the preterm infant. Infants are more sensitive to pain and cannot use their emotions to regulate it like we can (Marko and Dickerson 2017).

How is Kangaroo Care facilitated?

Ensure the mother has access to a calm environment, comfortable, stable chair and pillows and blankets (Royal Children’s Hospital Melbourne 2016).

During Kangaroo Care, the infant is placed in an upright position on the mother’s chest, with arms and legs flexed. The head is turned to one side and abdomen placed at the mother’s epigastrium to facilitate breathing (WHO 2003).

Kangaroo Care is recommended in many clinical guidelines.

Why is it important?

- ▶ Every year, approximately 15 million babies worldwide, are born preterm. Prematurity is the leading cause of neonatal death, and those who survive are at a greater risk for disabilities and a reduced quality of life (WHO 2012).
- ▶ Pain is a factor which can increase the risk of neurodevelopmental impairment (WHO 2012). Those with the greater risk of impairment, are also more likely to experience painful interventions (AAP & CPS 2006).

Clinical Guidance

The WHO (2015) strongly recommends that kangaroo care is part of routine care for stable preterm infants. The American Academy of Paediatrics (2016 & 2006) advocates the widespread use of Kangaroo Care in neonatal units and its use in minor procedures to reduce pain.





Eighteen primary research articles which looked at the effectiveness of kangaroo care as a pain relief method in preterm infants from different angles were reviewed

- Most articles looked at the effectiveness of kangaroo care by looking at physiological and behavioural indicators of pain.
- Others looked at the factors which may impact on the efficacy of kangaroo care, including length of time, maternal anxiety/depression, enhancing kangaroo care and alternate providers.
- Five articles compared kangaroo care to other methods of non-pharmacological pain relief, including oral glucose solution, expressed breast milk and swaddling.

Findings

- Kangaroo Care is an effective method of non-pharmacological pain relief during minor painful interventions. It reduces both physiological and behavioural indicators of pain.
- 15 – 30 minutes of KC is optimum time to exhibit analgesic effects prior to and during an intervention.
- Maternal anxiety/depression and enhanced kangaroo care had no impact on its efficacy.
- Alternative or paternal KC, while not as effective as maternal, can still be used to reduce procedural pain.
- KC is more effective than oral glucose and swaddling. It also appears to be just as effective as EBM. The AAP (2016) and Johnson et al (2017) in a Cochrane systematic review suggest that kangaroo care combined with oral glucose may be the most effective methods.



Conclusion

- It is a safe, widely recommended intervention for stable preterm infants. The AAP (2016) states it may also have beneficial effects for term infants.
- It is cost effective.
- It can be provided by mother, father, any family member who is with the infant at the time.
- It should be utilised in neonatal units to reduce pain and improve overall outcomes.



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