

# The neonatal nurse's role in kangaroo mother care

Davy K, BACur(Ad/Ed)

Bergh A, PhD

Van Rooyen E, MBChB, MPharmMed

Correspondence to: Karen Davy, e-mail: karen.davy@vodamail.co.za

Keywords: neonatal nurse; kangaroo mother care

## Introduction

Worldwide almost 40 per cent of under-five deaths occur in the neonatal period, i.e. within the first 28 days of life.<sup>1,2</sup> According to Lawn and colleagues, the neonatal period has a nearly 30-fold higher average daily mortality rate than the post-neonatal period.<sup>1</sup> Approximately three-quarters of neonatal deaths occur within the first week of life, with the most dangerous period being the first 24 hours.<sup>1,2</sup> These facts highlight the importance of the role of the neonatal nurse in providing appropriate care at the time when infants are most vulnerable and families are struggling to make sense of what has happened. Kangaroo mother care (KMC) has been identified as a humanised neonatal intervention that includes the family, while at the same time provides for the needs of especially preterm and/or low birthweight (LBW) infants, i.e. under 2 500 g.<sup>3</sup> KMC has been described as “primarily a nursing intervention with medical support”,<sup>4</sup> which points to the

leadership role of the neonatal nurse in the support for KMC in a multidisciplinary team.

## Background to evidence-based KMC

KMC was first developed and practised in 1978 in Bogotá, Colombia.<sup>5</sup> The components of KMC are position (skin-to-skin contact of the infant on the mother's chest), nutrition (exclusive breastfeeding where possible) and earlier discharge (including effective follow-up care).<sup>3</sup> For the mother to practise KMC successfully, a support component is essential, provided by the health workers, family and community.<sup>4,5</sup> These components are illustrated in Figure 1. Continuous KMC refers to the practice of caring for the infant in the skin-to-skin position 24 hours per day. Intermittent KMC entails limited sessions of skin-to-skin care, interrupted by periods of mother and infant separation. This form of KMC is practised in high-care settings as a complement to conventional incubator care, until the infant is ready to be transitioned to continuous KMC.<sup>6</sup>



The neonatal nurse plays a pivotal role in the KMC dyad's supportive environment

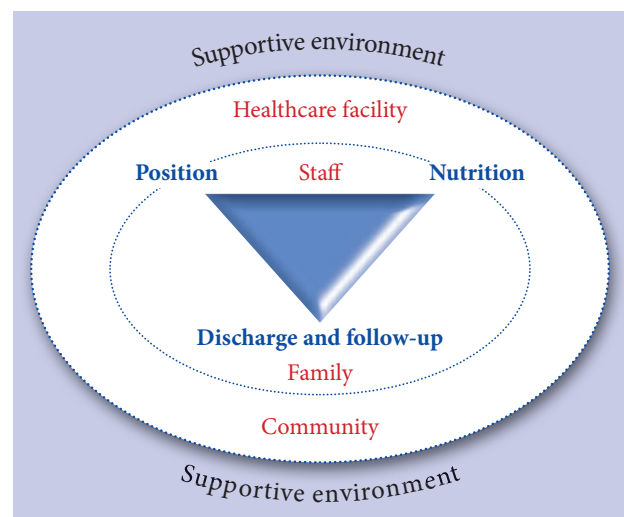


Figure 1: The components of kangaroo mother care<sup>4</sup>

The numerous physiological, behavioural, psychosocial and neurobehavioural effects of KMC are well documented.<sup>7,8</sup> In an updated Cochrane review of the reduction on mortality and morbidity outcomes associated with KMC, the authors come to the conclusion that KMC “is an effective and safe alternative to conventional neonatal care in LBW infants mainly in resource-limited countries”,<sup>9</sup> for which they provide the following rationale: “KMC was found to reduce mortality at discharge or 40-41 weeks’ postmenstrual age and at latest follow up, severe infection/sepsis, nosocomial infection/sepsis, hypothermia, severe illness, lower respiratory tract disease, and length of hospital stay. Moreover, KMC increased weight, head circumference, and length gain, breastfeeding, mother satisfaction with method of infant care, some measures of maternal-infant attachment, and home environment. There was no difference in neuro-developmental outcomes at one year of corrected age.”<sup>9</sup>

According to The United Nations Children’s Fund (UNICEF), the mother-infant dyad has particular health needs for which good healthcare interventions exist, for example adequate nutrition, optimal antenatal care, skilled attendance at birth, emergency obstetric care, newborn care, post-partum care, and education targeting infant feeding, care, hygiene and health. Interventions addressing these care needs should be part of development frameworks that would strengthen health systems and provide an environment that supports the rights of women and children.<sup>2</sup> KMC has been identified as one of the interventions in newborn care that can make a difference.<sup>10</sup> In 1998, the Bogotá Declaration recommended the practice of KMC and advised that KMC should be incorporated into all newborn care at all levels in all countries (see Table I).<sup>11</sup> A number of evidence-based clinical guidelines for KMC practice at all levels of care, including high technological situations, have also been developed and published.<sup>5-8</sup>

### The neonatal nurse in KMC implementation and practice

In the international guidelines for the practice of KMC, the role of the neonatal nurse is implicitly framed in terms of the scope of practice each country defines for its neonatal nurses. At the International Conference for Neonatal Nursing hosted by the Neonatal Nursing Association of Southern Africa (NNASA) in Durban in October 2010, a one-day KMC workshop was attended by 80 participants from 13 countries. In the group work, participants were requested to define the role of the neonatal nurse with regard to KMC implementation. Some participants had long years of experience in KMC and others were novices, so the focus was strongly on how to get KMC implemented as a standard newborn care practice where it did not exist. It was furthermore acknowledged that neonatal nurses work in varying conditions, ranging from high-tech, state-of-the-

**Table I: The Bogotá Declaration on kangaroo mother care<sup>11</sup>**

The Second International Workshop on Kangaroo Mother Care, held on 4 December 1998 in Bogotá, Colombia, with participants representing 30 countries from five continents, hereby makes the following Declaration:

We note that:

- The major component of infant mortality in countries represented at the workshop and world-wide is perinatal and neonatal mortality.
- In many of these countries, there is a high incidence of low-birthweight infants, which contributes significantly to the mortality rates observed.
- These neonates often suffer from neurological sequelae and poor growth and development because their care and maintenance is expensive and sometimes impossible to provide.
- Kangaroo mother care is an affordable, alternative method which has yielded good results. Its safety has been documented to provide the basic requirements for the survival of the newborn: mother’s warmth, mother’s breast milk, and mother’s love and protection.

We recommend, therefore:

- That all governments, through their health ministries, incorporate this method into their national health programmes for newborns.
- That all international organizations concerned with the welfare of children and their mothers provide support and consider adopting kangaroo mother care as part of their worldwide programmes.

We declare:

- That kangaroo mother care should be a basic right of the newborn.
- That it should be an integral part of the management of low-birthweight and full-term newborns in all settings and levels of care in all countries.

art neonatal intensive care units to facilities with limited resources and that these conditions, to some extent shape, the role that the neonatal nurse can play with regard to general care, but also regarding the development of KMC protocols.

However, there was a common vision concerning the key roles of the neonatal nurse in the implementation and practice of KMC: to display certain personal characteristics, to be the person others turn to for information and knowledge of KMC, to display leadership qualities, to practise KMC ethically and caringly, and to be an efficient manager. The following is a summary statement of the professional ideals for the neonatal nurse as set out by the workshop participants (see Table II).

### *Personal characteristics of the role model*

Always adhering to the profession’s values, the neonatal nurse should display high-quality professional behaviour,

**Table II:** Vision of the key roles for the neonatal nurse in KMC implementation

- The role model with a caring ethos and personal qualities such as positive values, behaviour, attitude and social skills.
- The knowledgeable resource person assuring quality in education and practice.
- The enthusiastic and visionary leader of the multi-disciplinary KMC team.
- The clinician advocating best interest and gold-standard practice for every neonate and parent or caregiver.
- The service manager with a mission to provide sustainable, quality kangaroo mother care.

communicate with all role players frequently and openly, and maintain high practice and management standards in supervising mothers practising KMC. He or she should be a role model at all times, treating parents and health workers with respect. As the agent of change, the nurse is required to be tolerant, a good team player and to include all role players, understanding that KMC cannot be practised in isolation. At the same time the neonatal nurse should demonstrate a positive attitude that motivates, encourages and expects members in the multi-disciplinary team to act in an appropriate manner. This will guarantee that high-quality KMC is practised and maintained. Effective communication skills are necessary, as the neonatal nurse will be required to listen and to convey a variety of messages to mixed audiences.

#### *KMC resource person*

In order to enhance the quality service of KMC practice, the neonatal nurse should develop a maxim of continuous learning and self-development. In this way, the neonatal professional will become a KMC resource person, knowledgeable in matters pertaining to kangaroo mother care information, practice and implementation. As a KMC resource person, the neonatal nurse will be able to impart generous up-to-date knowledge, clinically and theoretically. This will involve creating awareness, advocating KMC, and providing education and training to all other stakeholders and role players such as management, healthcare providers, allied personnel, mothers and fathers, families, support groups and the community. The KMC resource person will act as coach, guide, supervisor and champion to those practising or wanting to initiate KMC practice.

The resourceful neonatal nurse will be effective in his or her advocacy to all stakeholders involved in KMC. He or she will collect data efficiently, keep up-to-date statistics for regular analysis and ensure that the information gleaned will be utilised as evidence for

the practice of KMC. Being astute, the neonatal nurse will be able to identify risks, challenges and potential problems and implement feasible solutions to prevent or overcome obstacles.

#### *Leader of the KMC multidisciplinary team*

The neonatal nurse will be a passionate leader able to encourage and identify healthcare workers willing to participate in a multidisciplinary KMC steering committee. In addition, the KMC nurse leader will oversee the development of appropriate and well-functioning sub-committees and support groups. As a co-ordinator of KMC services, the nurse leader will be able to rally up support, obtain the necessary resources (human, financial and physical) and have the ability to sustain the service. Facilitating the KMC implementation activities, the enthusiastic and visionary neonatal nurse will ensure that this process maintains momentum so as to achieve the goal of sustainable KMC practice. As leader of the team, he or she will ensure that the process of implementation is continuously documented from start to finish. The KMC neonatal leader will be the advocate for others and will take on advocacy tasks professionally by thorough planning and effective follow-through.

#### *KMC clinician*

As the advocate for securing the infant's safety, it is important that the neonatal nurse ensures the correct practice of kangaroo mother care. It is essential for the nurse to support the mother in the caretaking tasks of the infant in order to identify problems quickly or, if possible, prevent any that may occur. The clinician's role is to demonstrate the correct practice of KMC as well as the intricacies involved in taking care of a vulnerable preterm infant. In keeping with this role, the KMC clinician should incorporate teaching, educating or training of parents, staff and all other role players and stakeholders to make certain that quality care is optimally provided in the hospital and at home. The neonatal nurse practitioner will have the clinical experience and skills to be able to establish and practise KMC, taking on the roles of initiator, demonstrator, supervisor, coach and guide in neonatal care. This nurse clinician will incorporate efficient follow-up care into the KMC practice, maintaining accurate records throughout the duration of care. To further the efficacy of KMC, the clinician will drive the development of guidelines and protocols. These will be revised as new research findings are published and evidence emerges from the data and statistics collected, collated and analysed under their supervision

#### *KMC service manager*

The KMC service manager's ultimate mission will be to provide sustainable, quality KMC. To achieve this, the

neonatal nursing manager will need to be knowledgeable of KMC, buying into the concept of this treatment in order to provide senior management support. He or she will oversee the facilitation of KMC practice and implementation of strategies as well as assist with the coordination of KMC services. The manager will campaign for the necessary personnel, space, equipment, supplies, education and finances. A further task will be directing the formation and dissemination of KMC policy and assuring adherence to it. Efficiency in accurate documentation, record keeping and data collection will be the KMC manager's responsibility. The KMC manager will implement quality assurance processes, seeking to solve problems and overcome challenges in care provision. By carrying out efficient and reliable monitoring and evaluation procedures, the KMC nurse manager will strive toward and achieve the delivery of quality, holistic KMC services.

## Conclusion

Sufficient evidence exists to support the practice of kangaroo mother care in conventional neonatal care in all situations. It is the neonatal nurse's role to advocate for the practice of KMC on behalf of care providers, parents and the vulnerable neonate. KMC practice in high-care facilities requires the support of and adherence to quality standards which are, in turn, supported by higher management authorities. Consequently, the neonatal nurse's role is one of astute clinician, educator, trainer, advocate for KMC, caretaker of the infant, supporter of

the parents, visionary leader, good team player, problem solver and wise manager, as well as being the provider of emotional support and guidance.

## References

1. Lawn JE, Cousens S, Zupan J; Lancet Neonatal Survival Steering Team. 4 million neonatal deaths: When? Where? Why? *Lancet* 2005; 365: 891-900.
2. UNICEF. State of the World's Children 2009. Geneva: UNICEF; 2008.
3. Charpak N, Riuz JG, Zupan J, et al. Kangaroo mother care: 25 years after. *Acta Paediatr.* 2005; 94: 514-522.
4. Bergh A-M. Implementation workbook for kangaroo mother care. MRC Research Unit for Maternal and Infant Health Care Strategies, Pretoria; 2002.
5. World Health Organization. Kangaroo mother care: a practical guide. Geneva; 2003.
6. Nyqvist KH, Anderson GC, Bergman N, et al. State of the art and recommendations. Kangaroo mother care: application in a high-tech environment. *Acta Paediatr.* 2010;99(6):812-819.
7. Ludington Hoe S, Morgan K, Abouelfetoh A. A clinical guideline for implementation of kangaroo mother care with infants of 30 or more weeks' postmenstrual age. *Adv Neonatal Care* 2008; 8(3 Suppl): S3-S23.
8. Ruiz JG, Charpak N. Evidence-based clinical guidelines for an optimal use of the kangaroo mother method in preterm and/or low birthweight infants at birth. Bogotá, Colombia: Fundación Canguro and Department of Clinical Epidemiology and Biostatistics, School of Medicine, Pontificia Universidad Javeriana; 2007. [Webpage on the Internet] Available from: [http://kangaroo.javeriana.edu.co/sitio\\_ingles/de\\_nuevo\\_eng.html](http://kangaroo.javeriana.edu.co/sitio_ingles/de_nuevo_eng.html) (accessed 2008 Sept 12).
9. Conde-Agudelo A, Belizán JM, Diaz-Rossello J. Kangaroo mother care to reduce morbidity and mortality in low birthweight infants [Cochrane review] In: *Cochrane Database*, Issue 3, 2011.
10. Darmstadt GL, Bhutta ZA, Cousens S, et al. Evidence-based, cost-effective interventions: how many newborn babies can we save? *Lancet* 2005; 365: 977-988.
11. Charpak N, Figueroa de Calume Z, Ruiz JG. The Bogotá Declaration on Kangaroo Mother Care: conclusions at the second international workshop on the method. Second International Workshop of Kangaroo Mother Care.. *Acta Paediatr.* 2000; 89(9): 1137-1140.



Moms trust Telament® to restore peace in the home



There's nothing worse than seeing your little one helpless. And when they're in pain and discomfort, they're not the only ones who feel it. Telament® Paediatric Colic Drops and Gripe Water ensure that your baby gets quick relief. So you can rest assured that your angel will get a good night's sleep, and so will you.

Telament Paediatric Colic Drops, A11.10. Each 1 ml contains dimethicone 50 mg, Ref. No.: E859 (Act 101/1965). Telament Paediatric Gripe Water, Each 5 ml contains sodium bicarbonate and dill oil terpeneless 2,15 mg, Adcock Ingram Limited, Reg. No. 1949/034385/06, Private Bag X69 Bryanston, 2021, Tel: 011 635 0000, [www.adcock.co.za](http://www.adcock.co.za), Further information available upon request. ZA.09.0TH.011 01/2009 Exp. 02/2011