AN OVERVIEW OF KANGAROO MOTHER CARE

A midwife in Nigeria helps a new mother wrap her preterm baby in the KMC position.
Photo: Jane Hanh/Save the Children

Kangaroo Mother Care (KMC) is a form of care found to be successful in reducing mortality amongst small and preterm babies. This overview provides a brief background on the feasibility and advantages of KMC within certain contexts, particularly within developing countries.

THE CONTEXT

Preterm birth is the leading cause of the 3 million neonatal deaths that occur each year and the second leading cause of all deaths in children under age five.[1, 2] Preterm birth is also the dominant risk factor for neonatal mortality, particularly for deaths due to infection.[3] One of the main reasons that preterm babies are at greater risk of illness and death is that they lack the ability to control their body temperature—i.e., they get cold or hypothermic very quickly.

In many countries, the use of incubators for thermal care is standard, but several factors may impede their effective use. Due to high costs, many hospitals in low- and middle-income settings do not have incubators. Where incubators are available, they may not work consistently due to power cuts or lack of maintenance, and the number of babies needing one often exceeds the number of available incubators. In addition, prolonged hospital stays often associated with incubator care can be costly. Although for particular cases incubator care may be superior, evidence shows that for a large proportion of preterm babies, Kangaroo Mother Care (KMC) is more efficacious than incubator care, and a promising, affordable, and feasible intervention to save newborns in high- and low-income settings alike.

THE BENEFITS

KMC is a form of care developed by a team of pediatricians in the Maternal and Child Health Institute in Bogota, Colombia. KMC involves caring for small, particularly preterm, babies by positioning them skin-to-skin to the mother's or caregiver's chest. KMC also includes a critical component of adequate nutrition - early and exclusive breastfeeding - and aids early recognition and response to newborn infections or other complications. The KMC terminology was derived from how kangaroos care for their young: keeping them warm in the maternal pouch and close to the breasts for unlimited feeding until they are mature.

KMC is initiated once the baby is stable and without complications. KMC involves the provision of warmth through skin-to-skin contact between the mother's and baby's bodies. The baby is undressed and placed upright between the mother's breasts with his/her head turned to one side. The baby is then wrapped to the mother's bare chest with a cloth. If the mother is not available, the father or another adult can provide skin-to-skin care. Unstable infants who require medical attention can practice intermittent KMC. Once the baby has gained weight and caregivers have learned to provide KMC, the pair is usually discharged to continue KMC at home with recommended follow-up visits to monitor the health of the baby.

EVIDENCE AND IMPLEMENTATION

Compared with incubator care, KMC has also been found to reduce infection (including sepsis, hypothermia, severe illness, lower respiratory tract disease) and length of hospital stay.[6] The psychosocial effects of KMC include reduced stress, enhancement of mother-infant bonding, and positive effects on the family environment and the infant's cognitive development.[7] A recent meta-analysis of three randomised trials in low-income settings suggests a 51% reduction in mortality for newborns weighing less than 2,000g compared with conventional incubator care.[5]

Acceptance of the KMC method is increasingly widespread and KMC is becoming more prominent in countries as a technically simple and highly effective form of care to save preterm newborns. KMC empowers mothers and is feasible in many environments where quality of care in facilities is high. No special ward is required and KMC can be practised within existing postnatal wards when conditions are suitable.

Despite the recognition and benefits of KMC, few developing countries have made the intervention available and accessible to families. With the exception of Colombia, South Africa, Malawi, Brazil, and a few others, many countries have only a handful of facilities that offer KMC services. Introducing and expanding KMC services on a national level as part of an integrated maternal and newborn health package requires commitment from the government, particularly ministries of health, to determine feasibility barriers and priorities for newborn health, with support from local professional bodies, local "champions," international organizations, and governmental and nongovernmental agencies. Save the Children, the U.S. Agency for International Development (USAID), the United Nations Children's Fund (UNICEF) and the Bill & Melinda Gates Foundation have supported the initiation and expansion of KMC services in a number of countries through different programs, including USAID's flagship Maternal, Newborn and Child Health Integrated Program (MCHIP) and Save the Children's Saving Newborn Lives (SNL) program.

Countries have taken different approaches to setting KMC policy and service guidelines; developing clinical training materials, supervision schedules and tools, and integrating record keeping and reporting on KMC into routine monitoring and evaluation systems; documenting implementation; and costing KMC services. Implementation progress has also differed across countries. A recent multi-country evaluation of implementation progress for KMC offers a snapshot of facility-based KMC activities in four countries, and raises the possibility that other countries and institutions may learn from the strengths and challenges of institutionalizing KMC.[8]

To contribute significantly to the reduction of newborn death in developing countries, KMC should be considered as a technically simple and cost-effective option of care where feasible. If successfully scaled-up, KMC has the potential to save 450,000 newborn lives each year.[3]

KEY DEFINITIONS AND DISTINCTIONS

There are several forms of skin-to-skin care and KMC. Evidence of programmatic feasibility and effectiveness of these approaches varies, and not all are suitable for each context.

Skin-to-Skin Care is recommended for all babies immediately after delivery to ensure warmth. It is also a recommended method when transferring sick newborns to a health facility.

Kangaroo Mother Care is the early, prolonged, and continuous skin-to-skin contact between the mother (or substitute) and her baby, both in hospital and after discharge, with support for positioning, feeding (ideally exclusive breastfeeding), and prevention and management of infections and breathing difficulties.

Intermittent KMC refers to recurrent but not continuous skin-to-skin contact between mother and baby, with the same support from health workers as continuous KMC. It is practiced when the caregiver is unable or unwilling to practice continuous KMC in a health facility, or the baby is unstable.

Post-Discharge KMC, also called ambulatory KMC, is when the mother and baby are discharged from the facility because the baby is feeding well, growing, and stable, and the mother demonstrates competency in caring for the baby on her own. The pair practices continuous KMC at home with an agreed-upon schedule for follow-up visits to monitor the health of the baby and the mother.

Community-initiated skin-to-skin care is the practice of continuous KMC being initiated and continued at home. This practice is also called community KMC, but it does not necessarily link to the full package of supportive care. It has been practiced where referral to a health facility is either challenging or not possible.

References

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