KANGURU MOTHER CARE

Neonatal care

Both premature and fullterm

k a n g a r o o mother care

A practical guide



100 word version:

Dr Bergman qualified in Cape Town, South Africa, and later worked as doctor at Manama Mission, Zimbabwe. Here he, with Midwife Agneta Jurisoo, developed and implemented Kangaroo Mother Care (KMC) for premature infants right from birth, with dramatic improvement in survival of premature babies. He has continued researching this, and has contributed to this becoming the policy recommendation of the WHO.



Nils Bergman

Zimbabwe

Cape Town, South Africa

Sweden

Started research for proofs for kanguru method in the 1990's





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Kangaroo mother care: a practical guide

1 January 2003 Guidance (normative)



Overview

Kangaroo mother care is a method of care of preterm infants. The method involves infants being carried, usually by the mother, with skin-to-skin contact. This guide is intended for health professionals responsible for the care of low-birth-weight and preterm infants. Designed to be adapted to local conditions, it provides guidance on how to organize services at the referral level and on what is needed to provide effective kangaroo mother care. The guide includes practical advice on when and how the kangaroo-mother-care method can best be applied.

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KMC involves both:

SSC Skin to skin contact

BF Breastfeeding

Jill Bergman has a degree in Geography and English, and a higher diploma in education. She has worked as a teacher, lecturer, missionary, counselor, guider and youth leader, all these in three different cultures using three languages. Nevertheless, her top priority is her family, she has been an involved mother of three, who all breastfed for 18 months, and are now bright and super youngsters. She is passionate about parenting. Jill has been involved with Dr Nils Bergman in supporting and promoting Kangaroo Mother Care (KMC) for 24 years. As a teacher and counsellor she wants all parents to be given the Neuroscience of caring for their newborn babies in normal non-medical English. She has written and produced 4 DVDs on KMC. She has recently written a book called "Hold Your Prem", a practical workbook on skin-to-skin contact for parents of premature babies. The newest DVD is KMC for every baby called Grow your Baby's Brain. Jill is a qualified DOULA, and her knowledge of developmental care, and the above neuroscience on Kangaroo Mother Care, makes her a unique advocate for the baby at birth, a KANGAROULA!

Dr Nils Bergman calls himself a Public Health Physician, and currently promotes and researches skin-to-skin contact on a fulltime basis. He is an Honorary Senior Lecturer at the University of Cape Town, South Africa, and a research affiliate of the South African Medical Research Council. Dr. Bergman was born in Sweden and raised in Zimbabwe, where he also later worked as a mission doctor. He received his medical degree (MB ChB) at the University of Cape Town, and later a Masters in Public Health at the University of the Western Cape. During his years in Zimbabwe he completed a doctoral dissertation (MD, equivalent to PhD) on scorpion stings. He has worked in rural South Africa, Zimbabwe and Sweden, and his last posting was Senior Medical Superintendent of Mowbray Maternity Hospital in Cape Town, overseeing 18000 births per year. He enjoys sharing the wildlife of Africa with his wife and three youngsters.





Kangaroo Mother Care

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Research on SSC

In the uterine habitat, oxygenation is provided through the placenta and the cord, as well as warmth, nutrition and protection. These are the four basic biological needs. Parturition (birth) represents a "habitat transition". In the new habitat, the basic needs remain the same. Research over the last ten years provides strong support for the contention that newborn itself in the skin-to-skin habitat, not the mother or the health services, provides these basic needs.

Oxygenation has been shown to be improved on SSC, to the extent that KMC is used successfully to treat respiratory distress. The breathing becomes regular and stable, and is coordinated with heart rate. When removed from incubator and placed SSC, oxygen saturation may rise slightly, or the percentage of oxygen provided to maintain good saturation can be lowered.

Heart Rate is increased when placed SSC. Though we can regard this increase as being with the clinically normal range, what is seen is actually a return to the physiologically normal heart rate, the lower rate being due to "protest despair behaviour". Infants removed from incubators and placed SSC show a rise in temperature and a dramatic drop in glucocorticoids, as predicted by the "protest-despair response". Mothers are able to control the infants temperature within a very narrow range, far better than an incubator. To accomplish this, her core temperature can rise to two degrees Centigrade if baby is cold, and fall one degree if baby is hot. Skin-to-skin contact is better than incubator for rewarming hypothermic infants.

Self-attachment refers to the phenomenon that fullterm undrugged infants, left on their mother's chest and undisturbed, will all breastfeed spontaneously within one hour, with no help at all. But this behaviour is dependent on SSC. Mother and infant should NOT be separated. The stimulations the newborn gives the mother during SSC elicit caregiving and protective behaviours from the mother. The baby's legs kicking on the mother's abdomen cause the mother's uterus to contract strongly, preventing post-partum bleeding. Self-attachment refers to the phenomenon that fullterm undrugged infants, left on their mother's chest and undisturbed, will all breastfeed spontaneously within one hour, with no help at all. But this behaviour is dependent on SSC. Mother and infant should NOT be separated. The stimulations the newborn gives the mother during SSC elicit caregiving and protective behaviours from the mother. The baby's legs kicking on the mother's abdomen cause the mother's uterus to contract strongly, preventing post-partum bleeding.

Nutrition is improved, both with respect to the mother's ability to breastfeed, and with respect to the newborn's utilisation of the feed. The volume of mother's milk is greatly increased, and the frequency of feeds provided likewise. Even without the increased milk, with the vagal stimulation the infant receives, the gut is better able to use the milk provided, and grows faster.

Immunity is improved, demonstrable even 6 months later. Prematures seem to have poor immune systems, and are susceptible to allergies, infections and feeding problems in the first year of life. Early SSC dramatically reduces these problems.

Infections are reduced when SSC and exclusive breastfeeding are firmly introduced. Necrotizing enterocolitis (a potentially lethal and very costly disease to treat) has been dramatically reduced in many units following a KMC programme.

science and Stress

violation, the worst case scenario, to any newborn is separation from its habitat/mother. to Homo sapiens as fully as to other mammals studied. "Protest-despair" behaviour is a on, and the hormones related to this have been extensively studied. At high levels, these e intrinsically neurotoxic to the brain, particularly areas of the hindbrain, and any area e already a little hypoxic. SSC has been shown to markedly reduce these levels.

