

PHYSIOLOGIC STABILITY WITH KANGAROO CARE



Dr. Susan Ludington

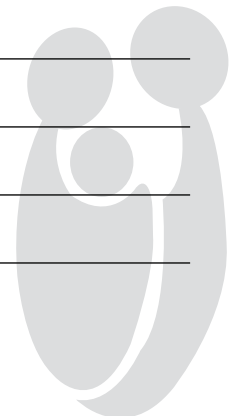
More than 924 reports of Kangaroo Care can be found in published literature, many of which are research studies that have investigated physiologic responses of infants to Kangaroo Care. A review of the major studies explicitly measuring or implying stability of vital signs and other physiologic measures (i.e. weight, brain maturation and complexity, sleep) will be reviewed as will the basic physiologic mechanism(s) (i.e. c-afferent nerve stimulation and non-separation) by which Kangaroo Care effects

occur.

Method: Publications from Pubmed, CINAHL, Scopus, ENDBASE, ERIC and PSYCHABS data bases were examined from 1970-2012 for citations dealing with kangaroo care, kangaroo more care, skin-to-skin contact, skin-to-skin care, skin-to-skin holding and extra contact in preterm and full term infants. All published records recorded in the United States Institute for Kangaroo Care's Annotated Kangaroo Care Bibliography (2012) were reviewed. Charts regarding each physiologic parameter, i.e. heart rate, heart rate variability, respiratory rate, breathing patterns, oxygenation, temperature, metabolic factors, cortisol, gastrin, weight change, EEG based sleep, brain maturation and complexity) were created prior to summarizing stability indicators in each parameter.

Result: Increased physiologic stability has been found in many studies and once a common operational definition of 'stability' has been accepted, effects of Kangaroo Care on physiologic stability should be included in Cochrane Meta-Analyses. In studies where stability was not found, positive changes in the physiologic parameter occurred, for example, brain maturation and complexity increased over 8 weeks of daily KC sessions 1.5 hours long from 32-40 weeks postmenstrual age (Kaffashi, Scher, Ludington-Hoe, & Loparo, 2012).

Conclusion: Kangaroo Care/Kangaroo Mother Care promotes and supports physiologic stability in preterm infants.



Bio write up for Dr. Ludington

Dr. Ludington earned her Bachelors of Science in Cell Biology from Univ. California at Santa Barbara and her Bachelors of Science in Nursing from Univ. California San Francisco. She got her Masters of Science with a major in Nursing from Univ. of California at San Francisco also, and then went on for her Ph.D. in Nursing and in Child Development and Psychology from Texas Woman's University in Denton, TX , and 3 years later became a Certified Nurse Midwife. In 1980 Dr. Ludington established the Infant Development Education Association of America after studying the effects of early sensory stimulation on newborn development. She became known for her pioneering work in black and white visual stimulation for newborns and her book "How to Have A Smarter Baby" based on her infant stimulation research at UCLA is still available at any bookstore, 25 years after first publication. Dr. Ludington was the first United States researcher funded by the National Institutes of Health to study the effects of Kangaroo Care on infant development. As a result of her research program in Kangaroo Care, Kangaroo Care has become the gold standard for family centered care and developmental care of infants. To share her research findings with consumers she wrote "Kangaroo Care: The Best You Can Do for Your Preterm Infant" which is available through Amazon.com. Dr. Ludington's Kangaroo Care research earned her the Lifetime Achievement Award in Research from the Midwest Nursing Research Society, the national Excellence in Research Award from the Association for Women's Health, Obstetric, and Neonatal Nursing, the Audrey Hepburn Award for Contributions to International Infant Health from Sigma Theta Tau International and was an inaugural inductee to the International Nurse Researcher Hall of Fame in 2010. She continues her research and teaching at Case Western Reserve University Bolton School of Nursing.

