# The experience of fathers with the kangaroo mother care method: an integrative review

Vivência de pais com o Método Canguru: revisão integrativa

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**Objective:** to understand the experience of fathers with the kangaroo mother care method. **Methods:** an integrative literature review in the following databases: Scientific Electronic Library Online, Medical Literature Analysis and Retrieval System Online, Latin American and Caribbean Health Sciences, Web of Science, Current Nursing and Allied Health Literature. **Results:** a total of 732 articles were obtained and seven were selected. It was identified that fathers experienced the kangaroo method with fulfillment and pleasure. They presented difficulties, fears and insecurities that may be associated with the functioning and life support devices used to ensure the survival of premature infants, related to the distancing between father and newborn. **Conclusion:** the father is currently more participative and aware of his role in the family environment and in the care inherent to the premature child. However, despite feeling unprepared, fathers are proud and hopeful with the clinical evolution when experiencing the kangaroo method.

**Descriptors:** Fathers; Infant, Premature; Kangaroo-Mother Care Method; Nursing Care; Maternal and Child Health.

**Objetivo:** compreender a vivência de pais com o Método Canguru. **Métodos:** revisão integrativa da literatura, realizada nas bases de dados: *Scientific Electronic Library Online, Medical Literature Analysis* and *Retrieval System Online,* Literatura Latino-Americana e do Caribe em Ciências da Saúde, *Web of Science e Current Nursing and Allied Health Literature.* **Resultados:** obtiveram-se 732 artigos e sete foram selecionados. Identificou-se que pais vivenciam o Método Canguru com realização e prazer. Ademais, apresentaram dificuldades, medo e insegurança que podem estar associados ao funcionamento e a dispositivos de apoio à vida, utilizados para garantir a sobrevida de prematuros no cuidado relacionado ao distanciamento da figura paterna com neonato. **Conclusão:** a figura paterna, atualmente, apresenta-se mais participativa e consciente acerca do papel no âmbito familiar e nos cuidados inerentes ao filho prematuro. No entanto, pais se sentem despreparados, mas orgulhosos e esperançosos com evolução clínica de bebês, ao vivenciar o Método Canguru.

**Descritores:** Pai; Recém-Nascido Prematuro; Método Canguru; Cuidados de Enfermagem; Saúde Materno-Infantil.

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## Introduction

Humanized care for low birth weight newborns through the kangaroo mother care method has stood out for providing early and continuous closeness of the premature baby to the parents and family. The benefits of using this methodology have demonstrated the importance of an attentive, safe care and also recognized the particularities of prematurity within the family, because, in most cases, the premature birth of the child occurs unexpectedly, thus constituting a family challenge<sup>(1)</sup>.

In recent decades, prematurity has been the leading cause of perinatal and neonatal morbidity and mortality worldwide, especially in developing countries. These have unfavorable socioeconomic and cultural conditions, which reflect on maternal and neonatal health care, becoming an important public health problem<sup>(1)</sup>.

All over the world, around 20 million premature children are born every year, approximately one third of them die before reaching the first year of life, and birth weight is the most significant factor among the causes of neonatal mortality<sup>(2)</sup>. In the Americas, about 12.0% of all newborns, or 1,944,852, are born before 37 weeks of gestation. Extreme premature infants are considered those who are born between 22 and 30 weeks; and moderate, those with gestational age between 31 and 36 weeks<sup>(1)</sup>.

In order to change this current scenario, the kangaroo mother care method integrates the agenda of health policy priorities in Brazil, in view of its feasibility. As a care measure, the humanized care of the low weight newborn was established in 2000 and updated in 2007, by Ordinance 1,683<sup>(1)</sup>, directed to the preterm and low birth weight newborn, through soft and hard technologies associated with intensive care, which occurs at the three levels of health care<sup>(3)</sup>.

The method is developed in three stages. The first begins at high risk prenatal care, followed by the baby's admission to neonatal intensive care units and conventional neonatal intermediate care units, in which parents have free access to visit and monitor the

care given to the premature baby. The second stage takes place in kangaroo intermediate care units, where parents have close and uninterrupted contact with their children, which enables them to practice the kangaroo position for a longer period and frequency, as well as empowering newborn care. The third occurs in outpatient follow-up and home environment, after discharge of the mother and premature child. This is based on some criteria, for example, a newborn weight of 2.500 grams, added to monitoring by primary care, with emphasis on growth and development norms<sup>(1,3)</sup>.

During the stages that include the kangaroo mother method, parents and relatives should be accompanied by trained health professionals in order to ensure the effectiveness of the method and the safety of the premature baby, and motivate neonatal care<sup>(3)</sup>. Thus, initially, parents are encouraged to make gradual skin-to-skin contact, allowing them later, step by step, a bigger approximation<sup>(4)</sup>.

Ministerial norms have associated the mother figure with kangaroo mother care practice, a fact related to the importance of breastfeeding and primary care for the premature baby. At this point, fathers also have been already active in various aspects in baby's life. Their presence represents the link between the mother and the family during the mother-child hospitalization period, revealing them as home support. Shared care significantly contributes to child development and softens the mother-woman's daily routine<sup>(3-4)</sup>. Familiar adaptations to the new routine must be taken into account, as well as decision-making involving relatives of premature newborns<sup>(4)</sup>.

However, studies based on the experience of fathers in premature newborn care with the kangaroo mother method are still limited, and the focus of research is directed to the mother figure, a fact associated with the importance of mother in child care, especially in the second stage. During this period, the mother accompanies the baby care at kangaroo intermediate care units. International research has shown the need to include and encourage fathers in this process<sup>(4)</sup>. In this context, the method promotes the participation

and empowerment of fathers about their responsibilities in caring for their child, giving them more confidence to meet the individual needs of the premature<sup>(1)</sup>.

Thus, given the relevance of the theme and recognizing the benefits of paternal presence in the kangaroo mother care method, the emotional support to mother and child and the importance of parenting in the development and growth of children, the objective was to understand the experience of fathers in the kangaroo mother care.

## Methods

Integrative literature review, performed synthetically, through the collection of study data, in a comprehensive and systematic manner. Thus, it enables comprehensive conclusions about the studied phenomenon, with a view to its understanding, as well as its applicability in practice, based on scientific knowledge<sup>(5)</sup>.

To elaborate such work, it is necessary to follow six steps: elaboration of the guiding question; literature search; data collect; critical analysis of included studies; discussion of results; and presentation of the integrative review<sup>(5)</sup>. These steps were primarily guided by the theme identification and formulation of the research question: How do fathers of premature children experience the kangaroo mother method?

The elaboration of the research question was based on the PICO strategy, which stands for Patient, Intervention, Comparison and Outcomes<sup>(6)</sup>. Thus, the P: fathers; the I: kangaroo mother method; C: absent; O: experience. There was no filling out of C, representing the comparison, since it was not the objective of the study.

The study selection stage involved a careful reading of titles and abstracts and, later, the full text. Inclusion criteria were established: original and review articles that addressed the objective of the present study and the research question, in the last 39 years (1980-2019). The choice of this time frame is justified, since the practice of the kangaroo mother care method was instituted in 1979. Theses and disserta-

tions, incomplete texts, editorial articles, abstracts, or publications outside the established period were excluded, as well as those that did not answer the research question.

The extraction of data occurred from careful evaluation, focused on an interpretative/exploratory reading of the articles, which were allocated through an adapted instrument<sup>(7)</sup>, containing the following information: article identification (title, database, journal, authors, and language of publication); research data (study design, objective, results and conclusions).

The search strategy stage was made in the collection available through the portal of journals of the Higher Education Personnel Improvement Coordination, by the Federal University of Rio Grande do Norte, in the following databases: Scientific Electronic Library Online (SCIELO), Medical Literature Analysis and Retrieval System Online (MEDLINE), Latin American and Caribbean Health Sciences Literature (LILACS), Web of Science and Current Nursing and Allied Health Literature. The survey of articles took place between April and May 2019, conducted by two researchers.

In the elaboration phase of the review, the descriptors to be used during the research were defined: Father, Premature Newborn and Kangaroo Mother Care Method, linked using the Boolean operator AND: Fathers (1#); Infant, Premature (2#); Kangaroo-Mother Care Method (3#). Thus, after combination 1# and 2# and 3#, 14 articles were found; 1# and 3#, 36; 1# and 2#, 682, resulting in 732 studies. After evaluating the duplicate and removed data, the first selection had 393 articles (Figure 1). Of these, selection was performed based on thorough analysis of titles and abstracts, resulting in 54 studies.

From the detailed reading, 47 studies were excluded because they did not address the research question. The selected articles were systematically analyzed and defined, in order to compose the final sample of the integrative literature review, which were categorized and interpreted, based on relevant and updated literature. To minimize bias, two researchers read the articles and filled out the data collection instrument independently.

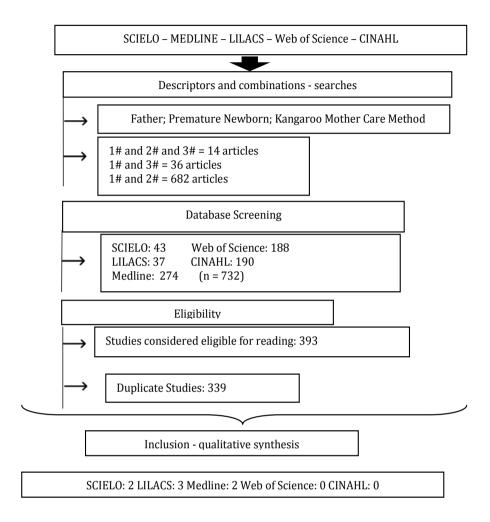


Figure 1 - Flowchart of search selection, screening, eligibility, and definition of studies

## **Results**

Regarding the year of publication, there was a predominance of publications from 2007 to 2015. Figure 2 shows the number of articles after applying the research inclusion and exclusion criteria. No studies were selected from the CINAHL and Web of Science databases.

Regarding the type of study, a larger number of exploratory and descriptive studies were obtained, mostly in foreign language journals, more specifically in Sweden, Brazil, Portugal and Spain. Of these, Medicine and Nursing areas presented the largest quantity.

After analyzing the articles of the literature review, two thematic categories emerged from the predominant areas, namely: Paternal care with premature children in the kangaroo mother care method, corresponding to studies A, B, C, D, E, F and G; and Fathers difficulties in performing the kangaroo mother care method, related to studies A, B, and G.

Id/Authors	Article title	Results
A <sup>(8)</sup> Tronchin DMR, Tsunechiro MA	Caring for and living with the premature child: the father's experience	Fear and concerns about premature birth and happiness when being with the child
B <sup>(9)</sup> Lundqvist P, et al	From distance toward proximity: fathers' lived experience of caring for their preterm infants	The role of the healthcare team: encouraging and guiding the father in child care
C <sup>(10)</sup> Lindberg B, et al	Adjusting to being a father to an infant born prematurely: experiences from Swedish fathers	The father learns to take care of his children with help of health professionals.
D <sup>(11)</sup> Blomqvist YT, et al	Kangaroo Mother Care helps fathers of preterm infants gain confidence in the paternal role	Opportunity for the father to cope with prematurity and develop parenting skills in the kangaroo mother care method
E <sup>(12)</sup> Gutiérrez JJB	The role of fathers in the postpartum period: experiences with skin to skin method	Encouragement given by healthcare professionals to the father when child caring
F <sup>(13)</sup> Santos ND, et al	(Re)cognizing the masculine participation in kangaroo method: an interface with the care practice of nursing	The method promotes affective relationship between father and child. The father is afraid of the child's death
G <sup>(14)</sup> Leal I, et al	Bonding and prematurity: exploratory study on early paternal involvement in hospitalization context	The father's fear in the first contact with the newborn and his approximation to him

Figure 2 - Characterization of articles according to identification, authors, article title and results

## Discussion

As a limitation, this review presented the shortage of studies, according to the adopted criteria on the theme discussed, a shortage mainly, from publications in international databases, with emphasis on Medicine and Nursing areas. This fact demonstrates the lack of studies in the context of neonatal nursing, studies that address the experience of fathers with the kangaroo mother care method.

The first category of results refers to the care that fathers provide to their premature children in the kangaroo mother care method. By assuming taking care for the child and dealing with the particularities of prematurity, the father may experience various antagonistic feelings. A new universe is unveiled to the father, while he gives a bath to his premature child, changes its diapers, feeds him, as well as they experience the kangaroo position. All this may generate this sort of feelings. Concerns and fears may be perceived, associated with the pleasure and joy of being with the child who is early arrived into the family<sup>(15)</sup>. The gestational period can serve as preparation time for the family, either financial or psychological.

Research conducted on this theme corroborates the previous statements by revealing, the relationship between father and son begins before conception, because men create expectations and anxieties about this relationship<sup>(16)</sup>. Therefore, the importance of male participation during the prenatal period is emphasized, focused on clarifying doubts and reducing anxieties and expectations of parenting, associated with the possibility of a premature child birth.

During gestation period, the father may experience the first desire to approach the child, which occurs through dialogue with the baby and touching the maternal abdomen. Proximity is interrupted when premature birth, data evidenced in a study on the relationship between father and son, which revealed, pregnancy interruption contributes to distancing between them, because after birth, premature newborn needs care and, therefore, hospitalization<sup>(17)</sup>.

Under these circumstances, the kangaroo mother care method provides the opportunity for daily contact with the premature baby, which allows the adaptation to the new routine needed to assist him.

Early interaction stimulates the relationship between father and child, besides allowing the sensation of being recognized by the child<sup>(11)</sup>. Added to these feelings are the parents' performance in practicing the method, as well as the relaxation of both, provided by skin-to-skin contact<sup>(18-19)</sup>.

Studies that made up this review<sup>(8,10-14)</sup> contemplate the paternal contentment when performing care for the premature child through the kangaroo mother care method, triggering the desires to be with the child and to exercise paternity. This finding corroborates the father's joy in being with the premature child and the desires to monitor both the development and daily clinical evolution of the child during hospitalization<sup>(17,20)</sup>.

However, four studies<sup>(8,9,11-14)</sup> highlighted ambiguous feelings, such as insecurities, concerns and fears. In hospitals, fear is common and arises from the paternal ignorance about the environment and the impossibility to control or change the situations experienced with the child, due to the limitations imposed by prematurity. A study confirms such data by demonstrating that the father feels powerless in front of procedures and assistance directed to the child<sup>(14)</sup>.

The first contacts with the premature child in the kangaroo mother care method reveal a fear of touching, associated to physical and physiological fragility. On these occasions, the father expresses contradictory emotions, such as the escape from reality and the joy of daily approaching his son<sup>(21)</sup>. As recommended by the Brazilian Ministry of Health, it is thought that, the kangaroo mother care method should be performed gradually, respecting the father's desire to be with the child, in order to overcome the fear of causing physical harm to the baby<sup>(3)</sup>.

Thus, the assistance given by healthcare professionals to the father is relevant, to ease the insertion of the father himself in the context of care. These environments comprise the first stage of the kangaroo mother care method, when the first parent-child contacts occur. For several reasons, the units described above may cause adverse feelings to the father, such as insecurity regarding the evolution, associated with

the fear of death of the premature child.

This environment influences the distancing of the child with the parents, as reported by a study that refers to the physical barrier imposed by the indispensable technological devices commonly used in neonatal intensive care units. Research describes that parents of children assisted in such units, characterize them as hostile and stressful, mainly due to the fact that it is full of specific devices and invasive procedures<sup>(22)</sup>.

During the first moments, it is recognized that, the father is frightened, a fact associated with the baby's fragility and diminished body dimensions. Studies show that parents associate their child's physical aspect with the difficulty of performing the kangaroo mother care method and also overprotection<sup>(8,13-15)</sup>. Obstacles can be minimized by the healthcare team, especially the nursing team, in promoting the early approach of the newborns' family, as well as in including them in care, such as changing diapers and feeding. These attitudes can provide the father with a sense of responsibility towards the premature child<sup>(23)</sup>.

The second category of results refers to the difficulties reported by parents for performing the kangaroo mother care method and baby adaptation to extrauterine life. The daily approach of the father and son, especially in the first two stages of the method, requires adaptation of the father's routine, which remains with his usual daily activities. The availability of hours was one of the most common barriers faced by men, related to work activities and family support during the hospitalization period of the mother and child. Studies indicated also, that parents are more influential in caring for their children, and are concerned with promoting affection and supporting their partner when caring<sup>(4,24)</sup>.

Therefore, it is necessary that healthcare professionals recognize the personal context of fathers who accompany premature babies, enhancing the potential and adjusting the difficulties presented. In the context of neonatal care, the professionals involved represent, in various situations, the link between the father and child. This leads to safely perform the

care inherent to prematurity and thus, determine the empowerment of care after hospital discharge, when continuing the third stage of the kangaroo mother care method.

The healthcare team has a unique role regarding maternal and neonatal care in view of prematurity. This is an unexpected event and involves changes in family dynamics, as highlighted in studies<sup>(8-9)</sup>. The still uncertain future of the prematurely born baby generates expectations and insecurity regarding the prognosis<sup>(23)</sup>.

The period in which the premature and mother remain in the kangaroo intermediate care unit is unknown and may last from weeks to months. The mother is away from her personal routine, family members and, in many cases, other children. Under this circumstance, the father provides significant support and tends to minimize maternal anxiety and concerns. In addition, the moments in which the father stays with his partner and son, in the kangaroo mother care method, can provide maternal rest and reduce the period that she remains admitted with the child.

In the care context for the premature newborn associated to the kangaroo mother care method, these should be performed appropriately, as the way the baby is handled may affect physiological and behavioral stability, due to morphological and physiological immaturity, thus requiring of individualized care<sup>(16)</sup>. Generally speaking, men need to participate in child care, in order not to feel exclusionary and incapacitated in the act of caring, feelings that should be minimized by professionals and her partner<sup>(17)</sup>.

Finally, it is recommended that family be accompanied and guided by qualified staff, with a view to comprehensive care addressed to the baby needs, providing adequate care and, therefore, a growing and safe development<sup>(25)</sup>.

## Conclusion

Fathers were found to be more participative and aware of their role in the family environment and in the care inherent to their premature children. Ho-

wever, they feel unprepared but proud and hopeful with their child's clinical course. Daily follow-up, gradual weight gain and each sign of progress raise the hope of discharge when experiencing paternity in the kangaroo mother care method.

## **Collaborations**

Lopes TRG, Carvalho JBL, Alves TRMA, Medeiros AB, Oliveira SS and Miranda FAN contributed to the conception and design, data analysis and interpretation, article writing, relevant critical review of the intellectual content and final approval of the version to be published.

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