KANGAROO-MOTHER METHOD: PERCEPTION OF THE NURSING STAFF IN THE NEONATE’S HEALTH PROMOTION

Método mãe-canguru: percepção da equipe de enfermagem na promoção à saúde do neonato

Método Madre-Canguru: percepción del equipo de enfermería en la promoción de la salud del neonato

ABSTRACT

Objective: To know about the perception of the nursing staff about the Kangaroo-Mother Method in the maternity ward of a teaching hospital. Methods: Qualitative research, conducted in September and October 2010, in Maria Barbosa Maternity of Clemente de Faria University Hospital, Montes Claros, Minas Gerais, Brazil, with five nursing professionals. Non-directive interviews were used for data collection, which were analyzed by means of the content analysis, emerging two categories of analysis: ‘Realizing the Kangaroo-Mother Method as a stimulus to the connection between the mother and the child’ and ‘Understanding the Kangaroo-Mother Method as a benefit to the newborn’s development’. Results: The professionals see the Kangaroo-Mother Method as a stimulus to the establishment of the mother-child bond, allowing this binomial to keep the union that was built since the intrauterine life. The Kangaroo-Mother Method is regarded as a relevant factor in the newborn’s recovery, given that it encourages weight gain, stability of vital data and stimulus to breastfeeding. It is also noticeable that, for the interviewees, professional training through continuing education on the performance of the technique is essential for providing humanized care in neonatal assistance. Conclusion: The nursing professionals interviewed understand the Kangaroo-Mother Method applied in their daily assistance as a search for humanization of care to the newborn, as a form of stimulation of the connection between mother and son, being presented as a relevant factor in the newborn’s recovery, providing improvement in the health of the neonate.

Descriptors: Maternity; Kangaroo-Mother Method; Nursing, Team.
RESUMEN

Objetivo: Conocer la percepción del equipo de enfermería sobre el Método Madre-Canguru de la maternidad de un hospital universitario. Métodos: Investigación cualitativa realizada en septiembre y octubre de 2010 en la maternidad Maria Barbosa del Hospital Universitario Clemente de Faria, Montes Claros-MG, Brasil, con cinco profesionales de enfermería. Para la recogida de datos se utilizó entrevistas no directivas las cuales fueron analizadas a través del análisis de contenido, identificándose dos categorías de análisis: “La percepción del Método Madre-Canguru como un estímulo de relación entre madre e hijo” y “La comprensión del Método Madre-Canguru como beneficio para el desarrollo del recién-nacido”. Resultados: Los profesionales identifican el Método Madre-Canguru como estímulo para el establecimiento de la relación y apego madre-hijo, permitiendo que ese binomio mantenga la unión que fue construida en la vida intra-uterina. El Método Madre-Canguru es considerado un factor relevante en la recuperación del recién-nacido porque conlleva al aumento de peso, estabilidad de vitales y estímulo al amamantamiento. Se destaca, todavía, que para los entrevistados, la capacitación de los profesionales sobre la realización de la técnica a través de la educación continuada es fundamental para ofrecer el cuidado humanizado en la asistencia neonatal. Conclusión: Los profesionales de enfermería entrevistados comprenden que el Método Madre-Canguru aplicado en la asistencia diaria como una búsqueda de la humanización del cuidado al recién-nacido, una forma de estímulo de la relación madre-hijo presentándose como factor relevante en la recuperación del recién-nacido y promoviendo la mejora de su salud.

Descriptores: Maternidades; Método Madre-Canguru; Grupo de Enfermería.

INTRODUCTION

The Kangaroo-Mother Method (KMM) is a neonatal care technology that consists in keeping the baby in an upright position against the chest of an adult. It was introduced in 1979 by Dr. Edgar Rey Sanabria, in the Maternal and Child Institute of Bogotá, Colombia. The method was to position the early newborn (NB) between maternal breasts, skin-to-skin, in the supine position. In such a way, kept warm by his mother’s body heat, the infant could leave the incubator earlier and be discharged, minimizing two serious problems of that time: overcrowding and infection(1).

In Brazil, the pioneering institutions that have implemented KMM were Guilherme Alvaro Hospital, located in Santos, in the countryside of São Paulo, in 1991, and the Maternal and Child Institute of Pernambuco, in Recife, in 1993. It was by means of the Standard Humanized Care to the Low-Birth-Weight Newborn (LBWNB), as from December 1999, that the Child area of the Ministry of Health (MOH) came to adopt the KMM as a National Health Policy, inserted in the context of neonatal care humanization(2) through the Kangaroo-Mother Project, Ordinance no. 693 GM/MS(3).

The KMM is performed in three steps. At first, the premature NB is admitted to the intensive care unit and the mother and the family receive information about health conditions, hospital procedures, breast-feeding and the precautions to be taken in order to enhance the understanding of prematurity. In the second stage, having achieved beforehand weight gain and the NB stabilization, the monitoring of mother can be continuous and the kangaroo position is already practicable, and can be used for as long as it is comfortable for both. The decision to participate in the method should result of a consensus between mother, family and hospital staff. The mother learns to identify alterations that may occur to the child, such as respiratory pauses, skin colour change, among others. The third stage ends at hospital discharge and, in the process, the mother should be prepared, as well as family members, since the commitment to the method continuity is essential. The NB must weigh at least 1,500 grams and be capable to perform exclusive suction to the chest. At this stage, monitoring is ambulatory and its function is marked by the performance of physical examination to verify the child’s development, as well as guidance and support in eventual consultations and specialized treatment(4).

In this way, the KMM comprises issues such as the technical care to preterm or low-birth-weight baby (handling, attention to individual needs, precautions regarding light, sound, pain); family embracement; promotion of mother/ baby bond and breastfeeding; and ambulatory follow-up after discharge(1,5).

Data from the research ‘Prematurity and its possible causes’ shows that, in 2011, the prevalence of preterm children in Brazil was 11.8%, while the Southeast and South regions had the highest rates, totalling 12.5% and 12%, respectively, followed by the Midwest (11.5%), Northeast (10.9%) and North (10.8%). The leading states in the ranking are Minas Gerais (12.7%) and the Federal District (13%). The high prevalence of prematurity poses important social and economic repercussions, with growing demand for Neonatal Intensive Care Units(6). With that in view, the importance and efficiency of the KMM stand out in the search for quality of care offered to premature NB, once the method provides individualized care, combined with technology and sensitivity, since it is believed to favour the parents’ initiation into the neonatal unit, promoting the family embracement, furthering the care focus beyond the preterm NB(7), in addition to providing better quality of life, reduction in mortality rates of this segment, implementation and maintenance of low-cost healthcare(8).
The participation of nurses in discussion groups and the overall applicability of the method is being progressively rendered more prestigious, providing contributions to the successful implementation of the KMM\(^{(9)}\).

The interest in this subject arose from the authors’ experiences, as they are professionals who have dealt or dealt directly or indirectly with the care for premature NB, using the Kangaroo Method. As time passed by, unequeness has emerged as the professionals were committed to the quality of care and observed that the actions were sometimes performed in a customary, poorly reasoned way. With that comes the following question or guiding question: ‘How do the members of nursing staff understand the Kangaroo-Mother Care Method in neonatal care?’.

This work is justified considering the importance of knowing the meanings that the nursing staff attributes to the KMM, given that, with the introduction of this method, the team was compelled to reorganize their care practice, having to re-evaluate behaviours and attitudes by means of imposed changes, without opportunity to modify their actions consciously\(^{(7)}\). Much is said, including on the part of imposed changes, without opportunity to modify their actions consciously\(^{(7)}\). There is no mention of the real importance of analysing and pondering over the understanding that the nursing staff has in respect to the method, considering the application possibilities and reflections on the benefits and implications that it poses to the NB\(^{(6)}\).

**METHODS**

This is a descriptive research with a qualitative approach\(^{(10-11)}\), performed at the Maria Barbosa Maternity of the Clemente de Faria University Hospital, in Montes Claros, Minas Gerais, Brazil.

Maria Barbosa Maternity consists of 30 hospital beds and registers an average of 180 births per month. It bears a significant experience in the process of maternal and child care humanization in the city of Montes Claros, and several cities in the North of Minas Gerais and Southern Bahia, being a regional referral care institution for women with high-risk pregnancies, seropositive and carriers of the Human Immunodeficiency Virus (HIV). In this maternity hospital, the kangaroo position is adopted in an area called ‘little hotel’, composed of six beds, where mother and son remain together until the NB reaches 2 kg and is in good clinical conditions to be discharged.

The study comprised the professionals of the said maternity nursing staff, which met the following criteria: being a nursing team professional (nursing assistant, nursing technician or nurse), and acting in the maternity for more than six months, as this was taken as the necessary period for the professional to have acted at some point as a facilitator in the humanization process to the NB, through the KMM. All the nursing professionals of the maternity were previously informed about the research, being explained the study objectives and importance. Those who agreed to participate and met the established inclusion criteria were invited to schedule the interview for the day when they would be on duty.

Data collection occurred in September and October 2010, through nondirective interviews, recorded by two authors, in the very maternity, where professionals were assessed in the scheduled days, in their rest intervals, so that the service routine was not affected, and they took place in a quiet location, in order to avoid interruptions. The interview guiding questions were: ‘Tell me about the meaning of KMM for you as a professional nursing’, and ‘Tell me about the importance of this method for nursing care.’ It is noteworthy that the number of participants was not predetermined because, in qualitative research, the focus is not on getting quantifiable answers but on covering the research problem in its entirety and multiple dimensions. The saturation was thus observed after five interviewees, the collection being finished in view of the recurrence of data\(^{(10)}\). Four nursing technicians and a nurse, who were aged between 28 and 42 years, took part of this study.

To organise the results, the interviews were transcribed verbatim. In conducting the data analysis, the technique of content analysis of categorical type\(^{(12)}\) was used. It presents the following steps: pre-analysis (organization of the knowledge corpus for analysis); initial reading; exhaustive reading; choice and coding of units of analysis; and elaboration of the categories (‘Realizing the Kangaroo-Mother Method as a stimulus for bonding between mother and son’, and ‘Understanding the Kangaroo-Mother Method as a benefit for the newborn’s development’), seeking the relations between them. To maintain the respondents’ anonymity, female pseudonyms were used.

The study was approved by the Ethics Committee of the Clemente de Faria University Hospital, which authorized data disclosure for academic purposes. It stands out that it was also approved by the Research Ethics Committee of the Montes Claros State University, under opinion no. 2155. All participants signed the Free Informed Consent Form.

**RESULTS AND DISCUSSION**

In this section, the thematic categories that have emerged in the study are presented.
Realizing the Kangaroo-Mother Method as a stimulus for bonding between mother and son

The ‘Realizing the Kangaroo-Mother Method as a stimulus for the bond between mother and son’ highlights the humanization of care. Is based on closeness between parents and their children within the hospital interment units (13), promoting an unique experience, rendering the mothers closer to their babies in a way similar to the intrauterine (14). Within the KMM action of implementation in Brazil, nursing has contributed to the effectiveness of this program by means of assistance grounded in the dedication and humanization of care, providing greater interaction between family, premature baby and the health team (13).

The nursing team understands the KMM as a stimulus for the bond between the mother and the child, allowing this binomial to maintain the union that was built since the intrauterine life, by fostering greater closeness between them, what may be evidenced in the following statements:

‘It enhances the connection between mother and child.’
(Maria)

‘We see [...] that the baby who stays in the Kangaroo-Mother Method is much more attached to his mother.’
(Francisca)

‘This method stimulates breastfeeding.’
(Katia)

‘When the mother agrees in doing the Kangaroo Method, we see [...] she gets happy.’
(Sheila)

By the speech, it is perceived that the subjects viewed the KMM as favourable to the establishment of a connection and mother-child attachment. They addressed the importance of this attachment to the stimulation of breastfeeding, and understood that the method leads to personal satisfaction expressed by the assistance that was guided and encouraged.

The experiences of mothers with the KMM are related to the increase in mother-infant bonding and reduced NB-family separation time, improving the mother’s relationship with the family, between them, and with the team (13,15).

It is noteworthy that one of the main objectives of the KMM is the breastfeeding encouragement (13). Studies have shown that the practice of KMM favours breastfeeding because of greater contact between mother and child, besides the positioning made easier by this method. As a result, it provides exclusive breastfeeding even after hospital discharge (14,16).

This way, through the stimulus to this bond, the KMM also empowers the maternal care for her NB. Therefore, as the nursing professionals visualise the KMM as assistance, they start to realise that this care should be valued and encouraged, leading to greater quietness, and hence to the confidence on the part of the team towards the mother.

Understanding the Kangaroo-Mother Method as a benefit to the newborn’s development

The category ‘Understanding the Kangaroo-Mother Method as a benefit to the newborn’s development’ was seen as a differential feature in the NB assistance humanizing model, being regarded by the health professionals as capable of providing benefits to the baby during the performance of this method, aiding in reaching satisfactory results by improving the clinical course, and being proven in the following discourses:

‘The precaution that we teach and guide them to adopt in here is the same that they must have at home.’
(Maria)

‘We let it stay, for example, for an hour... But the mother frequently keeps it for much longer.’
(Sheila)

‘When we experience the method with the mother and her baby, we become more confident that most of the mothers are taking care as they must or, at least, as they should do.’
(Maria)

The KMM provides parents’ increased competence and confidence in caring for their child even before hospital discharge (15). Authors emphasise that mothers consider that the KMM is an opportunity for learning about taking care of their child and the emotional connection is relevant and provides the baby’s recovery (14,17).

However, some of the interviewees realised that mothers end up getting a responsibility burden through the implementation of this method, liable to result in difficulties in their life experienced with it.

‘The mother ends up partially substituting this care.’
(Maria)

‘In fact, there are mothers who stay for longer, and some of them sometimes cannot stand it.’
(Sheila)

In the KMM, the key protagonist is the premature baby. One notes, then, that nursing holds excessive responsibility for by the mother-woman, being important that the health team watches out for the difficulties posed to the mother when experiencing the method, supporting her in the most fragile moments (15,19). Importantly, the mother’s participation in this method is not compulsory and, according to the MOH, it is suggested that an adult performs the positioning; however, the care offered by the mother is seen as a particular form and her presence favours breastfeeding, the bond establishment and the NB’s good recovery (18).

‘The baby is in the Kangaroo Method, he gains weight faster.’
(Francisca)

‘On the day the Kangaroo is used, the babies are more likely to gain weight.’
(Sheila)
We see that the method helps us in reaching earlier release of the child. ‘(Susi)

In actual practice, this method will benefit the baby for the rest of his life. ‘(Katia)

It is clear, in the speeches, the benefit of the method to the neonates’ health. The contact between mother and baby during the use of the method stimulates weight gain in a faster way, from the control of thermoregulation and the promotion of breastfeeding\(^{(13)}\). The mother who can actively cope with this process offers the premature child a good enough environment to foster their growth\(^{(19)}\).

Another way for the KMM to contribute to the positive results concerning the premature NB is understood by nursing professionals when it maintains the NB’s physical welfare, promoting the reduction in respiratory rate and mean arterial pressure, increasing oxygen saturation and normalizing body temperature\(^{(19,20)}\). This was also observed in the participants’ speech, as evidenced below:

'It will help maintain the temperature.' (Susi)

'We realize that the baby is calmer, stops crying. Sometimes he even sleeps.' (Francisca)

'It calms the child down.' (Maria)

'When the method is being used, it brings welfare to the child.' (Susi)

Another study\(^{(21)}\) points out that the results did not show significant changes in mean blood pressure (p>0.05) and heart rate (p>0.05) after the KMM application. There was, however, a significant increase in axillary temperature (p<0.05) and peripheral oxygen saturation (p<0.05), and significant decrease in respiratory rate (p<0.05), thus concluding that this method promotes improvement in body temperature and increased peripheral oxygen saturation in preterm NB. Additionally, authors\(^{(19)}\) report that when early breastfeeding is provided to a premature baby, it leads to weight gain, increased glucose level in the blood and a decrease in unconjugated bilirubin, assisting in the intellectual and neurological development.

The nursing professionals also pointed that, by experiencing the KMM phenomenon as a humanized care to the NB, such experience leads them to incorporation of the NB nursing care to their routine work in the maternity ward, contributing to the quality of NB assistance, corresponding to the following speeches:

'When it’s time for the method, it is an additional precaution that we have to do.' (Sheila)

'One more tool that we can use to get to improve the assistance.' (Susi)

'It contributes to further humanized care.' (Katia)

A method of observation care for the intern baby or out there.’ (Maria)

It is essential that nursing professionals assume the welcoming attitude of a caregiver, optimizing the care of the mother-child binomial\(^{(17)}\).

Therefore, nursing plays an essential role in the introduction of the family to the method, being necessary to know, understand and transform their assistance, perceiving the mother, baby and family within their own cultures, understanding the need to promote nursing care in a cross-cultural perspective\(^{(14,15)}\). Such integration helps to minimize the impact of the strangeness caused by the hospital environment, which is permeated by technological resources that are poorly known by the parents, and where communication between professionals and parents is often built on the basis of a language composed of technical terms\(^{(15)}\).

In order to maintain this quality care, nursing professionals experience the KMM as an opportunity to promote health education.

'Best explanation for the mother for better adherence.' (Katia)

'I will teach and watch them from here.' (Maria)

'I see the mother asking much more (to perform it) because someone has guided her.' (Susi)

'The care that we teach and guide them, they should keep at home.' (Maria)

In a study conducted with 30 mothers in São Luís, MA, in 2005, the benefits of the nursing staff educational work with the mothers were confirmed by domestic practices, where 93.3% of the mothers adopted the kangaroo position, 86.7% performed technically correct breastfeeding, not using any jewellery, and 46.7% remained five to eight hours a day with the baby in this position\(^{(22)}\).

Nursing must educate during the maternal experience in the KMM, generating a humanized and educational assistance that will be essential for the whole family life\(^{(14)}\), instructing parents to understand that early birth process and preparing them for caring after discharge\(^{(13,23)}\). In a study with 12 workers of a maternal and child hospital in the city of Rio de Janeiro, RJ, the professionals highlighted the so-called ‘extended care’, related to the staff concern in achieving participatory integration of the family members accompanying the NB hospitalization process\(^{(15)}\).

In addition, in this study some respondents perceived the need for continuing education for professional development, which is evidenced in the following statements:

'It needs to be improved for us professionals, here.' (Susi)

'From the professional view, it was such a discovery.' (Sheila)
'Many people do not know what its purposes are or what it represents.' (Susi)

Professionals know the method empirically, accept it and are available for its implementation through training and composition of a multidisciplinary team without hierarchical roles, with recognition of shared actions for the integrated work and without information dichotomies for mother and family, which corroborates other authors’ reports\(^\text{(24)}\).

Studies\(^\text{(25,26)}\) have found that, despite the theoretical knowledge about humanized care to the newborn through the KMM, the professionals still do not apply it fully in their clinical practice, suggesting that the scope of this form of neonatal care is not yet fully assimilated. These same authors recommend continuing education at all levels of training for health professionals who provide care to the NB. The success of the change process requires awareness and continuous education of the people involved\(^\text{(18)}\).

**FINAL CONSIDERATIONS**

From the study arose the perception that the nursing professionals who were interviewed understand the KMM applied in their daily care as a search for humanization in the NB care, and a way to stimulate the connection between mother and child. It is presented as a relevant factor in the NB recovery, providing weight increase, stability of vital signs, and stimulus to breastfeeding. According to the interviewees, learning and acquiring confidence relative to the care of these babies, through health promotion and continuing education of health professionals, is essential to offer this humanized care in neonatal assistance, this education being crucial for a quality healthcare.

It is noteworthy that, among the difficulties encountered in conducting the study, it was faced with the fact that professionals know almost empirically the Kangaroo-Mother Method, restricting its use within the ward routine, in spite of knowing the benefits that the method brings to mother and child, making it clear that this form of care is still not completely assimilated by all.

It is recommended to carry out further studies on this topic, especially in other units providing neonatal care, for better visibility of the method performance, laying the foundation for improvements to the quality of NB healthcare in relation to the KMM.

We suggest the continuity of care actions aiming at the application of this method by the health team, contributing to the reduction of morbidity and mortality in this clientele.

Finally, it stands out the important character of this study, which could constitute a reference point for further research and/or studies to be carried out, thus strengthening the research line on the NB health policy, favouring the improvement of healthcare actions that promote the strengthening of the KMM, given that, besides being motivated to implement such assistance, the health team should guide and inspire families to develop this type of care. It is, therefore, essential to develop spaces that foster reflections, so that among these professionals can discuss their daily practice and its expressions on the application, development and evaluation of the Kangaroo-Mother Method.

**REFERENCES**


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