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Contributions of the nursing team in the second stage of the Kangaroo-Mother Care Method: Implications for hospital discharge of the newborn[a]

Contribuições da equipe enfermagem na segunda etapa do Método Canguru: Implicações para a alta hospitalar do recém-nascido

Contribuciones del equipo enfermería en la segunda etapa del Método Madre-Canguro: Implicaciones para el alta hospitalaria del recién nacido

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Abstract

Objective: To know the main care procedures of the nursing team in the second stage of the Kangaroo Care Method that contribute to the hospital discharge of the newborn and the continuation of home care, and to prepare an explanatory brochure to guide professionals in the management of hospital discharge. **Method:** Qualitative, convergent care study, carried out with 17 nursing professionals from a reference maternity hospital. Data were collected through semi-structured interviews and focus groups and analyzed through content analysis. **Results:** There were relevant concerns about the use of kangaroo position, about the skin-to-skin care and hygiene of the newborn, and about respiratory changes as a warning sign for intervention. A brochure was developed to showcase the essential care provided by the nursing professionals - its goal is the proper continuation of health care of premature or underweight babies. **Conclusion and implications for the practice:** Nursing teams can contribute to the clinical stability of the newborn in the second stage of the Kangaroo-Mother Care Method and elaborate educational interventions that guarantee the continuation of care.

Keywords: Kangaroo-Mother Care Method; Infant, Newborn; Day Care, Medical; Nursing, Team; Neonatal Nursing.

Resumo

Objetivo: Conhecer os principais cuidados da equipe de enfermagem na segunda etapa do Método Canguru que contribuem para a alta hospitalar do recém-nascido e para continuidade do cuidado no domicílio e elaborar um *folder* explicativo para guiar os profissionais no manejo da alta hospitalar. **Método:** Estudo qualitativo, convergente assistencial, realizado com 17 profissionais de enfermagem de uma maternidade de referência. Os dados foram coletados através de entrevistas semiestruturadas e Grupos Focais e analisados por meio da análise de conteúdo. **Resultados:** Relataram os aspectos relacionados à Posição Canguru; os cuidados com a pele e higiene do recém-nascido; e as alterações respiratórias como sinal de alerta. Elaborou-se um *folder* que contemplou os cuidados elencados pelos profissionais de enfermagem fundamentais o manejo da alta. **Conclusão e implicações para a prática:** Podem contribuir para estabilidade clínica do recém-nascido na segunda etapa do Método Canguru e elaborar intervenções educativas que garantem a continuidade do cuidado.

Palavras-chave: Método Canguru; Recém-Nascido; Hospitalização; Equipe de Enfermagem; Enfermagem Neonatal.

Resumen

Objetivo: Conocer los principales cuidados del equipo de enfermería en la segunda etapa del Método Madre-Canguro que contribuyen al alta hospitalaria del recién nacido y para la continuidad del cuidado en el domicilio y elaborar un folleto explicativo para guiar a los profesionales en el manejo del alta hospitalaria. **Método:** Estudio cualitativo, convergente asistencial, realizado con 17 profesionales de enfermería de una maternidad de referencia. Los datos fueron recolectados por medio de entrevistas semiestructuradas y grupos focales y analizados a través del análisis temático. **Resultados:** Relataron los aspectos relacionados con la Posición Canguro; el cuidado de la piel e higiene del recién nacido; y las alteraciones respiratorias como señales de alerta. Se elaboró un folleto que contempló los cuidados enumerados por los profesionales de enfermería esenciales para la continuidad de la asistencia a la salud del bebé que nació prematuro y con bajo peso. **Conclusión e implicaciones para la práctica:** Pueden contribuir a la estabilidad clínica del recién nacido en la segunda etapa del Método Madre-Canguro y elaborar intervenciones educativas que garantizan la continuidad del cuidado.

Palabras clave: Método Madre-Canguro; Recién Nacido; Centro de Atención Diurna; Grupo de Enfermería; Enfermería Neonatal.

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INTRODUCTION

In 1979, the neonatologist physicians Edgar Rey Sanabria and Héctor Martinez Gómez implemented the Kangaroo-Mother Care Method (KMCM) in a pioneering initiative at the Maternal-and-Child Institute of Bogota, Colombia, due to the lack of infrastructure for caring for preterm Newborn Infants and their high mortality levels, often because of hospital-acquired infection. The general objective of the implementation of this method consisted of preventing complications, promoting health, decreasing child mortality rates, as well as reducing the expenses of health services and solving the issue of scarce availability of neonatal equipment.[1]

In Brazil, KMCM first appeared with proposals beyond its original ones in Colombia, aiming primarily at the improvement, humanization, and qualification of neonatal care, as well as strengthening family bonds. Thus, the Humanized Care to Underweight Newborn Infants - Kangaroo-Mother Care Method (KMCM) emerged, being regulated by the Brazilian Health Ministry in Ordinance n. 693 from July 5, 2000, which was later amended by Ordinance 1.683 from July 12, 2007. This policy brought forth the qualification of global care for Newborn Infants, benefiting children's global development, family bonds and, consequently, causing a decrease in neonatal mortality rates.[2-4]

KMCM brings benefits such as strengthening of mother-child bonds, stimulating breastfeeding, maintaining newborns' body temperature control, and decreasing neonatal sepsis and hospitalization periods; it contributes to cognitive and motor development, promotes sensory stimulation, creates greater stability while transporting Newborn Infants and allows for the maintenance of vitals, even when performed in preterm babies under mechanical ventilation.[5-7]

KMCM consists of three consecutive steps. The first one is performed in the Neonatal Intensive Care Unit (NICU) where family welcoming and the first contact between parents and newborns happen. The second step starts when the newborn child is transferred from NICU to the Kangaroo Intermediate Care Unit (KICU), where the parents are invited to spend full time with their children to provide daily care under supervision and guidance from the healthcare team, specifically the nursing team. Finally, the third step is defined by the infant's hospital discharge into home care.[8]

This whole process is usually developed throughout a long period of hospitalization. During this time, habits are developed to assist the Newborn Infant (NI) in stabilizing his/her physiological parameters early, and in allowing the NI to spontaneously coordinate the acts of swallowing and feeding on the maternal breast as soon as possible, thus getting nourishment orally, with body temperature control and ascending weight gain. Thus, in the second step, parents must develop skills and abilities to take on their children's care requirements.[9,10]

In this sense, the outstanding role of nursing professionals is revealed when it comes not only to NI care but also in support, guidance and instrumentalization of mothers or tutors for the daily care of preterm or underweight NIs throughout the second step of KMCM. Therefore, for quality neonatal care, nursing practices have been a relevant resource for healthcare professionals in the achievement of comprehensive, individual and humane care to NIs and their families. Extensive knowledge and professional awareness ensure full care to newborns and parents, including them as part of the care unit.[11]

The intended hospital discharge, following a care plan, is part of a complex event that ties the entire nursing team together. Nevertheless, some professionals do not prioritize the correct activities as requisite for preterm infants' healthy development. Instead, they prioritize direct care aspects, excluding educational activities and the preparation for hospital discharge. Thus, professionals tend to overlook foreseeable problems that may happen at home, thus failing to suggest solutions timely. All of these nurse-family interaction dynamics allow for understanding the social, cultural and economic contexts where NIs belong and prepare the child's family members to adequately perform the essential care to the NI after hospital discharge.[12]

A study has demonstrated that nurses possess common knowledge about care during child labour and incentive to breastfeeding; however, the quality of care must be improved to answer to parental doubts, as well as when it comes to examining both mother and child before hospital discharge.[13] Thus, educational technologies, such as brochures, are useful when employed as guides for professionals on handling hospital discharge of NIs under KMCM care.

Therefore, the objective of this study was to know the primary care procedures of the nursing team during the second step of Kangaroo-Mother Care Method, focusing on the procedures that contribute to newborns' hospital discharge and the continuation of proper care at home. From that analysis, an informative brochure could be developed as a guide for professionals on handling hospital discharge.

METHODS

This paper corresponds to a Master's degree thesis researched in a reference maternity hospital in the State of Piauí, Brazil, from April to October 2016. It used a qualitative approach based on the referential methodology of Convergent Care Research (CCR). The choice for this referential methodology was made due to its innovation onto care praxis, through alternatives that minimize routine problems by allowing the introduction of new approaches.[14]

Using CCR, healthcare praxis and scientific exploration were incorporated into this study by linking research to provided care. This close relation, which is characteristic of CCR, allowed reflection upon care praxis through phenomena experienced in context to assist the inclusion of innovative concept constructions.[15]

Before research development, the researchers observed the practice field from an intuitive viewpoint, aiming to know the work of nursing professionals related to healthcare, so later they could take on data collection and finally proceed with an educational intervention.

Seventeen out of twenty-four nursing professionals that worked at Kangaroo Intermediate Care Unit (KICU) from the chosen maternity hospital took part in the research, on varying work shifts. Seven out of them were nurses, and ten were nursing technicians. Inclusion criteria were: Nursing professionals with minimal experience of six months working at KICU. Nursing professionals who were away from KICU due to vacations or medical leave were not included.

Data collection happened in two moments. Firstly, a semi-structured interview was conducted with closed questions in order to characterize the research participants. Later on, open questions were made, concerning which strategies were used by nursing professionals to guarantee clinical stability to NIs during the second step of KMCM, especially those aiming at hospital discharge; the questions also focused on what was the guidance provided to parents/adults in charge of the NIs. Those questions granted the study information referring to the theme under scrutiny.

The interviews happened individually, in a private space available at the participants' workplace. As an additional resource, there was a digital voice recorder in use, recording the entirety of the participants' answers, which lasted fifteen minutes on average. This part was deemed over when data repetition took place.

Later on, the interviews were fully transcribed and organized for analysis. Content analysis of transcribed interview data was performed, leading to interpretation after exhaustive reading and separation into affinity groups through keywords or repeated paragraphs, out of which three analysis categories emerged.

The interviews led the researchers to the guide that was used during the second moment (formation of focal groups), when the discussion of topics began. The objective of these discussions was to share primordial information for the continuation of NI's care under KMCM at home, so afterwards the intervention could be formulated.

Four focal groups were made, two on the afternoon shift and two on the night shift. The themes broached in the focal groups were: 1st - Kangaroo Position and breastfeeding; 2nd - Kangaroo Position, breastfeeding, hygiene and alert signs; 3rd - Kangaroo Position, breastfeeding, hygiene, alert signs and follow-up care (healthcare appointments, exams and vaccines); and 4th - compilation of all previous themes and brochure development.

This step had fifteen nursing professionals that participated in the semi-structured interview. Similarly to the meetings, the focal groups were previously scheduled according to the availability and work shifts of the nursing professionals. The focal groups happened in a private space in the participants' workplace. They were recorded in digital voice media, and during each one, a participant was chosen to take notes. The focal groups usually lasted for an hour. After the focal groups ended, the explanatory brochure was developed. The final content in the brochure was also grouped considering evidence from the literature.

In this study, the brochure was considered an intervention to guide professionals on handling hospital discharges. During hospitalization, those themes broached by the focal groups were among the frequent doubts of parents in relation to their children's care - doubts which, if inadequately solved or not solved at all, could compromise the continuation of proper care at home. Brochure development was based on the needs identified in focal groups; those needs created intervention points that were summarized in text. The purpose of this educational technology is to be used as a guide for professionals during the hospital discharge of NI's under KMCM care, contributing with the fulfillment of any missing steps on care praxis of the nursing team.

The study was submitted to the Research Ethics Committee of the Federal University of Piauí (UFPI) and was approved under Substantiated Report 1.431.180. It respected the requisites set by Ordinance 466/12 of the National Health Council (CNS), which provides regulations and directives that rule over research involving human beings.

All participants took part in the study voluntarily, what implied the signature of a Free and Informed Consent Form (FICF), which clarified the research objectives. Aiming at the preservation of anonymity of the participants, transcribed statements were inserted and identified in the text according to the sequence of the interviews: Interviewee 01, 02, 03, and so on.

RESULTS

The following categories were identified: *Aspects of Kangaroo Position: Relevance and vigilance*; *Newborns' skin care and hygiene on the second step of Kangaroo-Mother Care Method*; and *Breathing alterations as an alert sign*. Henceforth the data referring to the categories emerging from analysis can be found.

Aspects of Kangaroo Position: Relevance and vigilance

Kangaroo Position, which consists of keeping the preterm and/or underweight NI in a vertical position against the chest of his/her adult in charge, is a recommended practice due to its low cost and because it brings countless benefits to the baby, his/her parents and other relatives. Thus, nursing professionals encouraged this method in their daily work, as it can be noticed in the following statements:

> *Explain, like, the kangaroo - here we say, she has to use the kangaroo because of the skin-to-skin more intimate contact, the baby will put on weight, temperature is always nice (Interviewee 02).*
>
> *We always tell them that as soon as they are not breastfeeding, to put the baby in Kangaroo Position, even because he warms up better, it will avoid many things to the baby - for example, he'll be warm, won't have hypothermia [...] (Interviewee 13).*

Participants of this research also reported this improvement to body temperature:

> *[...] here on Kangaroo a lot of low body temperatures show up. When the temperature goes low, we already say... Mother, put him on Kangaroo Position, so she wears the harness, we place the baby on the harness all snuggled up, and it's such a thing that soon, temperature rises, gets to a good level! (Interviewee 16).*

From such statements, the importance of preterm infants' body temperature regulation is evidenced, and it is undeniable that the nursing team worries about implementing Kangaroo Position to prevent and manage hypothermia.

Another benefit of Kangaroo Position was also deemed important by the nursing professionals participating on the research: The maternal-affective bond, which involves feelings from mother and child, or of the adult in charge that may substitute the mother on the first days of the preterm and/or underweight NI's life.

> *[...] they have to know the importance of the bond between mother and child, of the contact that the mother has to have with the baby, especially the preterm ones that we know the mother has to form a bond with. (Interviewee 01).*
>
> *[...] for them to remain on Kangaroo Position due to establishing the mother and child bond, parent and child, family - that the method is not only for mother and child. (Interviewee 06).*

It was also noticed that research participants identified a need for constant vigilance concerning the patient's safety during the use of Kangaroo Position and, thus, they consider it fundamental to inform the adults in charge of NI's frequently.

> *Many mothers here want to sleep with the baby on the bed, we tell them, you can't help when you're sleeping... you can roll over and crush him, so he has to stay in his crib, that is the appropriate place for him [...] if you feel sleepy put him on the crib 'cause it's safer for him and you. (Interviewee 05).*

As suggested by the statements above, the researched nursing professionals tried to avoid unsafe acts while mothers used Kangaroo Position by teaching them best practices, so more favourable results may be achieved. That happened with guidance about the correct time to place preterm and/or underweight NI's on their cribs, i.e., the proper moment to interrupt the Kangaroo Position. However, in spite of that guidance and vigilance for risk decrease, it can be observed that accidents still happen, as evidenced below:

> *[...] we've had several cases of neonatal death because of this here, the mother rolled over the baby, or pushed him out of bed... even sitting on an armchair, they stayed with the baby... he suffocated, so it's very complicated. (Interviewee 05).*
>
> *The baby was going to be discharged the next day, and then he died, he passed away because the mother slept on top of him. We tell them not to sleep with the baby. (Interviewee 12).*

It must be emphasized that communication between the nursing team and mothers and/or other adults in charge of the NI's, when it happens effectively, decreases conflicts, misunderstandings and solves detected problems.

Newborns' skin care and hygiene during the second step of Kangaroo-Mother Care Method

Concerning NI's hygiene under KMCM, Interviewee 05 reveals one of the benefits of bathing for preterm and/or underweight NIs:

> *Cleanliness is critical because, since they are preterm children, their immunity is low, so infection risks are very high, virus infections, any opportunistic diseases. If there isn't this hygiene care it gets really complicated [...] (Interviewee 05).*

Thus, by analyzing this professional's statement, bathing is one of the main preventive measures against infections through the skin, since it allows the removal of bacteria accumulated during the day alongside sweat and food traces (milk). Bathing NI's has to be done according to his/her physiological and behavioural pattern. That measure, as evidenced by the following statement fragments, is employed by the researched nursing professionals:

> *Here we guide [them] through bathing, with warm water, with the baby bundled up, wrapped up in cloth and all that process to avoid temperature loss [...] (Interviewee 03).*
>
> *[...] we get warm water [...] bathe by soaking them little by little, so the baby isn't scared; otherwise, he'll cry. Then we like to also wrap him in a cloth diaper [...] (Interviewee 13).*

As observed on Interviewee 04's statement, the professionals are also concerned with explaining step by step how to bathe the baby:

> *[...] I always say we have to start in the cephalocaudal direction, beginning by the head, then the face. To avoid that the baby's feet get support on the place where they'll bathe the baby because they tend to try and crawl. The face must also be well supported in a C shape. Always leave the baby's bottom for last because, sometimes even for cultural reasons, they tend to go from the baby's bottom to then go to the baby's face [...] (Interviewee 04).*

As observed on Interviewee 04's statement above, the nursing professionals perform and guide bathing according to what is recommended by KMCM, i.e., in the cephalocaudal direction and from the cleanest to the dirtiest area. Usually, mothers or other adults in charge of NI's are afraid of performing the bathing and hygiene routines; thus, it is one of the nursing team's tasks to involve them in this care, providing support and fundamental knowledge for acquiring confidence.

> *[...] when a preterm child is born they are afraid of holding him, they are so scared of dropping him, they are so frightened of letting the baby fall in a bucket and drown... They are afraid of everything. Thus we have to transmit this confidence to the mother, so she really feels empowered, and she can bathe her child [...] (Interviewee 06).*
>
> *[...] they are scared, they wait for their visitors to wash the baby [...] They insist they lack the courage to bathe, afraid of breaking the baby. So I say "Look, you won't break your baby" [...] (Interviewee 13).*

Not always practical observation is efficient; thus, it is up to the nursing team to encourage mothers to perform the bathing, teaching them, since only that way they will feel sure enough. It is worth mentioning that in this context, nursing professionals must guide mothers or other adults in charge of NI's about this kind of hygiene and its importance since babies that cannot take humanized bathing must also benefit from hygiene.

Nevertheless, upon analysis of the following statements, it is noticeable that quick cleaning procedures may bring harm to preterm and/or underweight NIs, such as rashes, when inadequately performed,

> *They prefer to make just some quick hygiene, and it's not useful, so sometimes we get babies with lots of rashes, due to this hygiene [...] (Interviewee 07).*
>
> *[...] we also always ask them to keep the child's hygiene, don't leave them with wet diapers for long to avoid rashes, because rashes are also risks for the child to get infections, everything... [...] (Interviewee 08).*

The statements of Interviewees 07 and 08 show that the nursing team does not underestimate the presence of rashes, since they cause discomfort and suffering to the child, besides being gateways to infections. Thus, the nursing team must always evaluate and observe how the baby hygiene procedures are carried out, guiding mothers or other adults in charge of NI's care to avoid further complications to preterm and/or underweight NIs.

The NI's umbilical stump, when inadequately submitted to hygiene procedures, also presents itself as a means for infections. The following statements reveal that nursing professionals take effort in guiding mothers and other concerned people about umbilical stump hygiene.

> *[...] when it comes to the mother's care it's even so the baby doesn't stay with a dirty umbilical stump, because it may cause other kinds of infection, it'll take longer to come off [...] (Interviewee 08)*
>
> *[...] when the baby arrives and still has an umbilical stump, we guide them to carry out antisepsis with 70% proof alcohol three times a day, ideally after bathing. After bathing is the time to clean up with alcohol [...] (Interviewee 12).*

It is relevant to mention that preterm and/or underweight NI hygiene is, as a whole, a part of basic childcare. It allows those children to keep their health through ambient safety measures. Besides guaranteeing comfort and well-being, such actions hold great relevance for the development of patients in fragile situations.

Breathing alterations as an alert sign

During the neonatal period or in the first months of life, preterm and/or underweight NIs have decreased lung function, presenting a high risk of respiratory distress syndrome. The immaturity of the respiratory system may show itself on babies through signs and symptoms, which serve as an alert for nursing professionals to act according to these changes to avoid further complications.

> *[...] when it comes to some alert sign with the NI [...] we usually tell them about coloration. If there's cyanosis, we try to install a wrist oximeter to evaluate everything properly [...] regarding alert signs, like cyanosis, nose flap movements, intercostal retraction [...] (Interviewee 04).*
>
> *[...] Look, mother, the baby is taking medication to stay awake longer, to avoid apnea - apnea is to stop breathing, so if you see his little hand or foot is purple, or the lips, then you call us [...] (Interviewee 12).*

It is worth mentioning that such alterations may cause mothers and other related adults to be distressed and apprehensive, as observed on the following nursing professional statements:

> *[...] sometimes the babies go into apnea, and they don't even notice, then when they see it the baby is already showing cyanosis, then it's a mess [...] (Interviewee 14).*
>
> *[...] Sometimes when it happens they rush the baby in, they already come in screaming and everything [...] (Interviewee 16).*

The semi-structured interviews created opportunities for debates regarding a series of relevant care procedures, which resulted in the consolidation of the statements above and allowed the construction of a guide discussed in focal groups. That

guide was later presented as a brochure that comprises the fundamental care procedures employed by nursing professionals aiming to continue preterm and/or underweight NI's healthcare.

The brochure mentioned above is called "Continuation of Kangaroo-Mother Care Method at Home" and broaches five great topics that provide the basis for its content: Kangaroo Position, breastfeeding, hygiene, alert signs and monitoring. In each of these topics, there were important data related to the selected themes, and most of this information was written as answers to questions: "What benefits does Kangaroo Position bring? When should I breastfeed my baby? May I give my baby water or other food? How do I bathe my baby? When should I change my baby's diapers?". From these questions, their corresponding answers were written, besides additional information. In general, the brochure presented clear, accessible, straightforward language that is entirely directed to its target audience, with attractive design of shapes and colours customized to hold the readers' attention.

DISCUSSION

The nursing team of this research emphasizes the relevance of KMCM and the vigilance levels that must be maintained in the healthcare unit. In line with the results of this research, another qualitative study made with nursing professionals in a reference maternity hospital highlighted that the importance of KMCM must be made clear to mothers through guidance. Raising awareness in mothers through teaching is an extremely relevant factor, since it broadens understanding about the method, making it more frequent and advantageous for the institution. In this setting comes the importance of nursing professionals' care, furthering NIs' stabilization and recovery while hospitalized,[16] so the family feels able to continue necessary care after hospital discharge.

Regarding body temperature evaluation, thermoregulation is an organic function that is intimately linked to the success of NIs' cardiovascular and respiratory adaptation. Due to the heterogeneity and the relevance of thermoregulation for NI stability, it is necessary that the nursing team have vast knowledge about mechanisms related to the maintenance of body temperature of these patients.[11]

In that sense, for NIs' temperature regulation to happen adequately, measures are taken inside the hospital environment to decrease the risks of hypothermia. Among those measures are the presence of heated delivery rooms, the practice of immediate drying after birth, the maintenance of uninterrupted skin-to-skin contact between mother and child, the incentive to early breastfeeding, the practice of belated bathing and weighting, the maintenance of mother and baby together for the longest time possible, the performance of heated transport and reanimation and, finally, the training and awareness of professionals about all of the previously listed aspects.[17] All such aspects must be emphasized, so families ensure NIs' thermic stability at home.

Regarding Kangaroo Position, literature highlights that it may cause risks for the newborn child in case proper vigilance is not maintained. Risk of suffocation is one of the most frequent issues, and it has been evidenced before in qualitative research that aimed at uncovering sociocultural meanings for co-bedding practices. Mothers chose to establish rules, such as not sleeping beside the baby, to guarantee the child would not suffocate or fall off the bed.[18] However, even presenting risks, evidence shows that sleeping next to NIs has been a method to stimulate breastfeeding and to avoid early weaning. Therefore, it is up to the professionals to decide alongside the family if this procedure may be recommended and what can be done to ensure NIs' safety.[19] Kangaroo Position is also used in the third step of the method, and it ensures the continuation of care that had already been provided before - during this step the position is less frequent as the baby grows; nevertheless, encouraging this position raises mothers' confidence to breastfeed, besides encouraging the bond between mother and child.

Still regarding preterm children's specificities, this public's integumentary system is subjected to forced adaptation to the extra-womb environment. Thus, their skin is thinner, more fragile and still under development, making these babies vulnerable to skin abrasions and, consequently, to a higher risk of contracting systemic infections and irritations.[20]

In light of those facts, it is essential that nursing professionals take special care to keep babies' skin healthy. Thus, the nurse must find means to implement strategies and establish goals that further protection, prevention and appropriate treatment to the NI, providing comprehensive and qualified care.[21]

In a nursing professional's care experience with preterm NIs, there are difficulties regarding products, techniques, materials and procedures, such as the absence of skin care protocols, lack of standardization of materials to preterm infants' care before invasive procedures, among others. To overcome such limitations and provide quality care, it is indispensable to use Evidence-Based Nursing, so it directs the professional to still-existing limitations and how to overcome them, becoming a more competent professional that provides higher quality healthcare.[22]

One of the difficulties presented by mothers during home care after hospital discharge is to bathe preterm children. Qualitative research conducted with puerperal individuals shows that, during the first bathing in hospital accommodations, mothers may experience feelings of fear and joy related to this moment. Satisfaction refers to the sensation of performing simple acts, such as providing care, bathing the child, changing diapers and breastfeeding. Those activities, despite their simplicity, are new for the mother - thus, the feeling of fear is due to a lack of knowledge about the correct way to hold the NI during bathing. Another aspect that causes insecurity is the absence of adequate physical structures, without bathtubs and proper tools for bathing.[23]

In tune with this study, mothers' concern with apnea was found in qualitative research that aimed to explore and describe the transition of babies from the Intensive Care Unit to home. Apnea caused fear in mothers, who were wary of NIs' stopping breathing during bathing.[24]

Respiratory alterations in the NI, such as sleep apnea, were mentioned on research as a reason for mothers' and relatives' apprehension; however, it was revealed that such a concern could be minimized through knowledge. Thus, it is essential that mothers are alerted about apnea, which may be usual, and that there is no need for panic, although highlighting that the nursing team must be informed on such occasions.

Many times this fear can be justified by the fact that respiratory stress is the condition that causes most NIs' admittance to Neonatal Intensive Care Unit (NICU).[25] It is indispensable that nursing teams remain attentive to the appearance of respiratory alterations, considering that, although most times they do not imply a risk to preterm and/or underweight NIs' health, other times there may be complications. That caution may lower the number of painful and stressful procedures to be taken, what is fundamental for preterm infants' adequate well-being since they need behavioural organization for their neurologic development.

During the observation period of care praxis that nursing professionals dispensed to parents, relatives and NIs that were in Kangaroo Intermediate Care Unit (KICU), many information gaps and difficulties were noticed, which were confirmed upon the use of the questionnaire found in the results. The brochure was proposed as an intervention, covering the care praxis mentioned by the nursing professionals in focal groups - care which is fundamental to the continuation of adequate health care to preterm and/or underweight babies. Discussion in focal points created opportunities for debates about relevant care procedures, resulting in the brochure material.

To offer quality healthcare, it is necessary that professionals in the area acknowledge their needs and implement new care praxis that contributes to improving patients' well-being. Therefore, the active participation of professionals in the nursing area was necessary for the consolidation of the brochure.

CONCLUSIONS AND IMPLICATIONS FOR PRAXIS

The work of a nursing team that contributes to the healthcare of NIs under KMCM and, consequently, to their hospital discharge, consists of guidance about aspects of Kangaroo Position, skin care and hygiene of NIs and respiratory alterations as alert signs of NIs' health.

A newborn's hospital discharge will only happen when his/her clinical stability is reached; thus, the support of nursing professionals is primordial for the effectiveness of this step of the method. They are the ones who guide parents and other family members through the daily struggles of taking care of their children, aiming mainly at answering possible doubts through guidance and supervision. In this sense, they can contribute not only to the achievement of the newborn's clinical stability but also to the development of educational interventions that ensure the continuation of proper care after hospital discharge.

Those actions developed by nursing professionals during the second step of KMCM bring essential advancement to the neonatology field, since they directly influence the increased survival rate of newborns. Thus, nursing as science has an important role not only on health care but also on research, looking for innovative methodologies with repercussions on praxis.

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