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KANGAROO METHOD: PERCEPTION OF THE NURSING TEAM IN A HIGH-RISK MATERNITY HOSPITAL

*Método canguru: percepção da equipe de enfermagem em uma maternidade de alto risco**Método Canguro: percepción del equipo de enfermería en una maternidad de alto riesgo***Carlos Antonio de Lima Filho**¹ **Camila Farias de Sousa**² **Maria Aparecida Farias de Souza**³ **Sebastião Alves Santana Neto**⁴ **Wagner Gonçalves Horta**⁵ **Amanda de Oliveira Bernardino**⁶ 

ABSTRACT

Objective: analyze the nursing team's perception of the kangaroo method in a high-risk maternity hospital. **Method:** exploratory, descriptive study, with a qualitative approach, carried out through semi-structured interviews with nurses from a high-risk maternity hospital in Recife (PE), carried out between January and February 2020. The interviews were transcribed and subjected to analysis using the content technique by Bardin. **Results:** two categories were formulated, nursing care in the kangaroo method and benefits and challenges found in the Kangaroo Method. Participants reported that nursing care is mainly based on guidance from mothers, the shortage of professionals and low adherence were highlighted as main challenges. **Conclusion:** it was found that nursing practice in the kangaroo method is a complex process, requiring a motivated and specialized nursing team.

DESCRIPTORS: Kangaroo-mother care method; Premature infant; Nursing care; Neonatal nursing; Maternity hospitals;

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RESUMO

Objetivo: analisar a percepção da equipe de enfermagem sobre o método canguru em uma maternidade de alto risco. **Método:** estudo exploratório, descritivo, de abordagem qualitativa, realizado por meio de entrevista semiestruturada com enfermeiros de uma maternidade de alto risco de Recife (PE), desenvolvida entre janeiro e fevereiro de 2020. As entrevistas foram transcritas e submetida a análise através da técnica de conteúdo de Bardin. **Resultados:** ocorreu a formulação de duas categorias, assistência de enfermagem no método canguru e benefícios e desafios encontrados no Método Canguru. As participantes relataram que os cuidados de enfermagem se baseiam principalmente em orientações as mães, a escassez de profissionais e baixa adesão foram evidenciados como principais desafios. **Conclusão:** constatou-se que a atuação de enfermagem no método canguru é um complexo processo, necessitando de uma equipe de enfermagem motivada e especializada.

DESCRITORES: Método canguru; Recém-nascido prematuro; Cuidados de enfermagem; Enfermagem neonatal; Maternidades;

RESUMEN

Objetivos: analizar la percepción del equipo de enfermería sobre el método canguru en una maternidad de alto riesgo. **Método:** Estudio exploratorio, descriptivo, con enfoque cualitativo, realizado a través de entrevistas semiestructuradas a enfermeros de una maternidad de alto riesgo de Recife (PE), realizado entre enero y febrero de 2020. Las entrevistas fueron transcritas y sometidas a análisis mediante el Técnica de contenidos de Bardin. **Resultados:** Se formularon dos categorías, los cuidados de enfermería en el método canguru y los beneficios y desafíos encontrados en el Método Canguru. Los participantes informaron que la atención de enfermería se basa principalmente en la orientación de las madres, la escasez de profesionales y la baja adherencia fueron destacados como principales desafíos. **Conclusión:** se encontró que la práctica de enfermería en el método canguru es un proceso complejo, que requiere de un equipo de enfermería motivado y especializado.

DESCRIPTORES: Método madre-canguru; Recien nacido prematuro; Cuidados de Enfermería; Enfermería neonatal; Maternidades.

INTRODUCTION

In the world, more than fifteen million preterm births occur annually, with Brazil ranking among the top ten countries with the highest occurrence of this phenomenon.¹ Preterm births, defined as those occurring before the 37th week of gestation, regardless of birth weight, are classified as extreme (<28 weeks), severe (28-31 weeks and six days), moderate (32-33 weeks and six days), and mild (34-36 weeks and six days).¹⁻²

Due to their underdeveloped state, preterm infants (PIs) exhibit a higher rate of neonatal morbidity and mortality, primarily due to the immaturity of their organs, leading to the development of respiratory, hemolytic, neurological, immunological, and thermal disorders.²⁻³ During hospitalization, measures are taken to maintain physiological and thermal parameters, as well as to encourage breastfeeding and weight gain.⁴

In 1978, the Mother-Infant Institute of Bogotá, Colombia, pioneered the Kangaroo Method (KM). The KM involves keeping the PI in skin-to-skin contact on the chest, in the supine position, using the mother's body heat for as long as possible.⁵ The goal is to reduce the complications of hospitalization and deaths through low-cost, less invasive techniques, while also fostering the bond between the mother and the PI.⁶

The KM consists of three stages: the first involves high-risk prenatal care to admission of the PI to the Neonatal Intensive Care Unit (NICU), the second is the arrival at the Kangaroo

Ward (KW), the site for KM application, and the third and final stage involves maintaining post-discharge care in the home environment.⁷

In Brazil, the Guilherme Álvaro Hospital in São Paulo and the Mother and Child Institute of Pernambuco (now the Professor Fernando Figueira Integral Maternal Institute - IMIP) were pioneers of the KM in the early 1990s. However, it was only in 2000 that the KM became a public policy in Brazil, with its norms and guidelines implemented by hospitals within the Unified Health System (SUS).³ The Brazilian model aimed at humanizing care for the PI, parents, and family, as well as reducing neonatal mortality.³

The Nursing Team (NT) plays a crucial role in implementing the KM, responsible for providing essential care in the Kangaroo Ward.⁸ In addition to contributing to the reduction of morbidity and mortality, the NT also plays a vital role in guiding and supporting parents regarding the KM, allowing for a stronger bond with the PI.^{6,8} Professional practice and experience of the NT with the vulnerability of PIs are challenges faced by professionals⁸, necessitating evidence-based knowledge of their primary needs.

In this sense, it is crucial to understand the main aspects of the NT in their care practice with the KM, as health care is integral. Given the above, the question arises: "What is the perception of the nursing team regarding their care role in the kangaroo method?" To answer this question, the objective of this study was to analyze the perception of the nursing team regarding the kangaroo method in a high-risk maternity ward.

METHOD

This is an exploratory and descriptive study with a qualitative approach, following the guidelines recommended by the Consolidated for Reporting Qualitative Research (COREQ).⁹ The data collection took place between January and February 2020 at a state hospital located in the city of Recife (PE), Brazil. The hospital was chosen for being a reference in high-risk prenatal care and the use of the KM, serving as a state reference.

Inclusion criteria comprised nurses and nursing technicians with a minimum of six months of experience in the KW and professional practice during the data collection period. Professionals on leave, vacation, or those unreachable after three attempts were excluded. Five nurses participated in the study as they met the pre-established criteria.

Data collection involved semi-structured interviews with two stages. The first focused on participants' sociodemographic and professional characteristics, while the second included open-ended questions about the KM. Questions covered familiarity with the KM before working with it, care provided by the nursing team, the importance of the nursing team in KM application, benefits and limitations of the KM, and challenges encountered.

After clarifying the study's objectives and obtaining participants' consent, interviews were scheduled, conducted individually in a private setting at the workplace, recorded with an MP3 multimedia device, and lasted an average of 30 minutes. The principal researcher guided the interviews.

Recordings were manually transcribed, ensuring the preservation of impressions, intonations, pauses, among other aspects. Transcriptions were shared with participants through social media without a request for correction to guarantee anonymity. Participants were identified with the letter "E" followed by the interview order (E1, E2, E3...E8).

Content analysis, using Bardin's technique¹⁰, was conducted in three stages: 1. Pre-analysis of transcribed material; 2. Exploration and categorization of units of analysis; and 3. Treatment, conclusions, and interpretation of results. After completing the survey and analysis, the material was shared with participants again, and no requests for changes were made.

The study was submitted and approved by the Research Ethics Committee of Centro Universitário Tiradentes, following resolution n°466/12 of the National Health Council, with approval number 3.769.713 and Certificate of Presentation for Ethical Appreciation number 24141019.5.0000.8727.

RESULTADOS

The analysis included five interviews with nurses working in the KW, all of whom were female, aged between 23 and 57 years old. Four were married, and three had children. In terms of professional aspects, four were nursing technicians, and one had

a higher education degree. All were specialists in neonatology and had previous experience in NICUs.

After the interview analysis, the data were organized into two categories: 1. Nursing care in the Kangaroo Method (KM); and 2. Benefits and challenges encountered in the Kangaroo Method.

Nursing Care in the Kangaroo Method

Professionals emphasized that nursing care in the Kangaroo Ward begins with providing guidance to mothers:

"[...] guide the mothers [...] because many of them lack experience, don't know how to handle the baby, lack skills [...]." (E1)

"[...] orientation is very important, surveillance, you know [...] the care she needs to provide to the premature baby, trying to give her maximum responsibility [...]." (E2)

"The care of teaching, guiding, actually providing care, is done by nursing, so it's fundamental [...] the mother is inexperienced in this matter, right!? Calling her, guiding her on bathing, changing diapers, guiding her in everything [...]." (E3)

"The first thing is to guide the mother, okay!? We provide support for her after giving her a welcoming environment, then we pass on the rules and routines and provide support for what she will do with the baby [...]." (E5)

The Technical Manual of the Kangaroo Method establishes that care in the Kangaroo Ward needs to be developed through educational actions, addressing concepts of hygiene, health control, and nutrition. The interviews revealed that these cares are known and provided by the Nursing Team (NT):

"They assist during the bath [...] teach how to bathe [...] the diet issue, teach how to do it correctly, the time the mother has to sit after the diet to ensure the baby doesn't regurgitate [...]." (E4)

"Detecting if the baby is a bit tired, if he is showing signs of anemia, if there are any complications. Teaching how to change diapers, teaching how to bathe [...]." (E5)

"[...] also the issue of expressing milk, some mothers arrive at the Kangaroo Ward already knowing how to express because they spent some time in the NICU and during that time, they expressed [...]." (E3)

Another finding reported in the interviews was about the nursing team's care in the NICU and the Kangaroo Ward, regarding medication administration, baths, and other technical procedures:

"[...] inserting a catheter [...] gastric residue aspiration [...] vitamins, multivitamins [...] positioning the baby [...] if the baby has any issues, we provide these initial care [...]." (E2)

"Medications, we have to wake up the mothers at specific times to express milk every three hours [...]" (E3)

"Bathing [...] we know that we can't bathe until a certain weight [...] we know that bathing will lower the temperature, from the time the baby warms up, it will lose weight, the whole process [...]" (E5)

Autonomy must be encouraged for the relatives of the premature infant (PI), guiding them on post-discharge care at home:

"Because the concern here is how they will take care of a premature baby when they get home." (E2)

"Cleansing issues, oh, all the cleaning done at home, changing clothes [...] continuing the kangaroo process at home [...] they don't want to use a crib, they want to be skin-to-skin with the mother." (E5)

"[...] the issue of her learning to take care of her child, so we are essential because mothers leave prepared to take care of their child." (E3)

"[...] we teach them when to administer certain vitamins, knowing how to do these medications when they arrive. So they leave prepared to administer these medications, so we know here how to teach them." (E1)

Benefits and Challenges Found in the Kangaroo Method

The kangaroo position, which involves keeping the PI in an upright position, in skin-to-skin contact on the chest, is one of the benefits identified:

"[...] just keeping the baby with the mother, ensuring that bond that was cut too quickly [...]" (E4)

"[...] just the fact that the baby is with the mother, feeling her warmth, feeling the affection [...] not to mention the temperature issue, the mother will keep the baby warm by being in the kangaroo position, the baby's motor skills help, the respiratory issue, the cardiac issue [...]" (E5)

"The benefits involve skin-to-skin contact, which is more present when the baby is here [...] it will favor the bond between the mother and child [...] when the father is present too." (E2)

In another report, the insecurity of mothers in handling the PI is highlighted, and the Kangaroo Method is seen as a solution to this problem:

"[...] many are afraid to pick them up [...] many have seen them in an incubator for many days, without being able to handle them, here they break that taboo [...] so this project [kangaroo method] is important because it facilitates the transition between the hospital and home." (E1)

However, the interviews indicate that low adherence by mothers is one of the challenges for its implementation:

"[...] we can see that they were pushed here [...]" (E1)

"[...] sometimes the resistance of one mother or another [...] like, when they are approached to come here, they are welcomed, but I think they don't understand the message very well." (E2)

"[...] I think not all mothers are ready; I think they have to want to be able to apply the method." (E4)

Changes in the NICU environment to the Kangaroo Ward were also highlighted; however, it still presents a challenge to maintain:

"[...] this comfort, a less noisy environment, because in the NICU and in the UCI, it's noisier [...] during the day, we can't have a better ambiance [...] we try our best, but we can't alleviate it [...]" (E2)

Other findings highlighted in the interviews include the importance of the Kangaroo Method in preventing infections in the PI:

"[...] the baby will be directly with the mother, preventing infection because she will directly care for the child [...] we do the minimum [...] in the NICU, there are techniques, physio, the whole team works with the child [...] here, it's the mother [...] we provide support [...] handling is minimal [...]" (E5)

Additionally, keeping the PI in the Kangaroo Method promotes breastfeeding and weight gain:

"[...] so the weight gain issue is much greater, if the baby isn't gaining much weight in the NICU or UCI, and when the baby comes here [...] he starts gaining weight for the better, right [...]" (E2)

"[...] there will be skin-to-skin contact, the heartbeats, the mother's scent, the smell of milk, and then his development, because then he starts gaining weight." (E3)

The scarcity of a multiprofessional team and the lack of NT members were also reported:

"[...] mainly because it's a confined space, I think they don't have much support from other professionals, such as psychology, which should, you know [...] have more presence within the service with them, each shift." (E1)

DISCUSSION

It is observed that NT are the main professionals involved in the initial guidance to mothers of PI when they arrive in the KW, a finding that aligns with other equally qualitative studies, highlighting the importance of guidance during the KM implementation.⁶ Nursing care in the Kangaroo Ward goes beyond assistance care, with health education and guidance to family members being intrinsic responsibilities in professional practice in the KM.¹¹

The understanding of mothers through guidance is a significant aspect, as it improves the understanding of the KM, making its use more frequent and advantageous for the institution.⁶ Studies in the literature emphasize the importance of mothers' participation in the KM for its success, given the importance of recognizing warning signs in PIs, such as hypothermia, apnea, gastroesophageal reflux, lethargy, and behavioral changes.^{8,11-12}

During hospitalization in the Kangaroo Ward, mothers acquire technical knowledge to be active agents in PI care, strengthening the bond between the mother and child.¹² It is essential to create bonds between NF and mothers, providing a support network during hospitalization, ensuring better adaptation for mothers.¹³ As highlighted in the present study, the creation of this bond improves the guidance of care provided by mothers.^{6,12}

It is observed that, similar to the NICU, NT provides assistance to the PI in the Kangaroo Ward, such as medication administration, bathing, diet, and thermal control, characteristics similar to other findings in the literature.^{2,8,11} In this context, NF provides support in an organized and continuous manner to ensure the well-being of the Very Low Birth Weight (VLBW) infant.¹¹ However, these tasks need to be performed by trained professionals who recognize the physiological conditions characteristic of a VLBW infant.

Diet in the Kangaroo Ward is carried out in a way that the mother expresses breast milk and offers it to the PI through a cup or orogastric tube, making the mother an active participant in this process.¹⁴ It is fundamental for NT to encourage breastfeeding, providing a facilitating environment for the mother to stay close to the newborn and initiate early skin-to-skin contact.⁸ As observed in the interviews, the literature suggests that skin-to-skin contact establishes a bond, serving as an important stimulator for the production of breast milk and breastfeeding.^{6,8,12,14-16}

In this perspective, studies indicate that PIs who go through the Kangaroo Ward show high rates of exclusive or mixed breastfeeding after discharge.^{14,15} The literature points out that this characteristic is due to good information provided by NT about the importance of breastfeeding while in the Kangaroo Ward¹⁵. Additionally, findings show that NT also evaluates the nutritional aspects of PIs, such as dietary intake and weight gain.^{11,12}

As highlighted in the reports, the literature also emphasizes the importance of the KM in increasing the bond between the PI and the mother.^{11,12-18} A study conducted in two hospitals in Malawi showed the preference of mothers of PIs for the KM compared to care provided in the NICU.¹⁷

The PI does not complete its full intrauterine development, making it susceptible to serious health problems at birth. However, the bond established with the KM contributes to its improvement.^{8,17,18} The literature indicates that the use of the KM is intended only for PIs, although preliminary studies show its importance in the recovery of newborns with other conditions.^{18,19} Furthermore, when associated with the use of heated cribs and incubators, it reduces the length of hospitalization.^{8,12,18}

At birth, the PI's skin system does not reach full development, making it more susceptible to infections, which are facilitated by invasive procedures performed in the NICU.^{6,8} In this perspective,

as reported in the interviews, reducing handling of the PI in the Kangaroo Ward reduces the risk of infection.¹⁸ Other studies evaluating 21 randomized clinical trials revealed that the KM reduced the risk of infection. However, despite its numerous beneficial effects, the KM presents a risk of suffocation, emphasizing the need for constant surveillance by NT.⁶

As in other research, it is observed that mothers still have fear of practicing the KM, related to the anticipation of childbirth, as the expectations of motherhood are disrupted with the birth of a PI.^{12,15,20} To minimize this distress, it is crucial to stimulate the bond between the mother and the newborn, especially by NT.^{12,15}

The psycho-affective bond is considered one of the main effects of the use of the KM²¹; however, the reports indicate a certain lack of interest on the part of mothers. It is essential for NT to understand the difficulty mothers face during their child's hospitalization, the difficulty of leaving the familiar environment, and living in the Kangaroo Ward for an extended period.^{12,16} Due to various reasons, it is common for mothers not to establish an initial bond with PIs, making stimulation through the KM important.²¹

The routine care of the baby, the distancing from home life during the Kangaroo Ward period are factors that generate stress for mothers, which can lead to physical and emotional fatigue.¹⁴ Despite this, there is a lack of studies on the presence of psychologists in the Kangaroo Ward. Due to a more intimate contact, it falls on NT to provide psychological assistance whenever possible. However, the lack of professionals and limited time makes this function rarely performed by NT.^{11,12,22}

Unlike a developed individual, PIs have difficulty coping with environmental stress and/or adaptation.⁸ In this scenario, according to reports, there is concern about environmental changes in the Kangaroo Ward. The presence of competitive stimuli, such as lights and noises, as in the NICU, can affect the initial development of the PI.^{8,11} The concern of NF in the Kangaroo Ward with adequate lighting, covered incubators, reduced noise levels, and eye coverage is an important stimulus for their recovery and development.^{11,22}

Hospital discharge is one of the most critical stages of the KM, often marked by expectations and insecurities of mothers when performing the necessary care for the newborn at home.^{20,23,24} The bond between mother and PI in the hospital setting is fragile, and the use of the Kangaroo Method post-discharge tends to improve this bond, as well as improving thermal control, neurobehavioral and psycho-affective development, and mothers' confidence in continuing care.²³

As raised in the interview excerpts, NT plays an important role in guiding post-discharge care, similar to other research.^{23,24} In a study with 15 mothers of PIs who went through the Kangaroo Ward, it became clear that they understand the importance of using the KM at home and that the guidance provided during hospitalization was a crucial factor for this.²⁴

However, mothers still have doubts and fears, mainly related to hygiene, breastfeeding, environmental assessment, and growth evaluation.^{23,24} The literature indicates that bathing is one of the main obstacles experienced by mothers and professionals, both in the Kangaroo Ward and at home, due to the immaturity of ther-

moregulation in PIs.⁶ As evidenced in the reports, other studies show that NF should pay attention to guidance on bathing and perform it adequately.^{6,24}

For efficient transmission of information to mothers, it is essential for NT to have good communication with mothers, in a clear and simple language.^{11,20} The follow-up of Primary Health Care (PHC) is one of the contributing factors for efficient implementation of the KM post-discharge.^{20,23,24} However, it was evident that professionals are unaware of the importance of PHC in this process.

As a limitation of the study, it is characterized by being conducted in a single maternity hospital that is a reference in the use of the KM at the state level. Nonetheless, it presented a new perspective on the topic, as it is little studied in Pernambuco hospitals. It is noteworthy that this study was the first to investigate this issue, providing evidence not explored previously and of great relevance to public health, as the presented information can support the development of strategies aimed at improving the KM in Pernambuco.

CONCLUSIONS

Based on the results obtained, it can be inferred that the KM is an important tool through which NT can provide assistance to PI. Guidance on care was one of the main pillars of nursing care in the KM; however, the shortage of nursing professionals, a multiprofessional team, and the lack of adherence by mothers were the main challenges. NF also related the KM to increased mother/child bond, breastfeeding encouragement, infection control, and better PI recovery. In conclusion, it is noted that this is a topic of great relevance in the nursing practice in neonatology. Suggestions for future studies include the inclusion of other professionals such as doctors and psychologists, who were not the focus of this study.

REFERENCES

1. Sarrazin PSV, Marinho DTS, Rezende AMS, Silva TV, Souza GB, Abreu AS, et al. Prevalence of premature birth between 2018 and 2019 in a public maternity in the municipality of Manaus-Amazonas. *Saúde Coletiva* (Barueri). [Internet]. 2023 [cited 2023 nov 13];13(87). Available from: <https://doi.org/10.36489/saudecoletiva.2023v13i87p12829-12840>.
2. Carvalho JO, Toledo LV, Braga LM, Krempser P, Pacheco ZML, Dutra HS. Hypothermia among premature newborns on admission to a neonatal intensive care unit. *Rev. gaúch. enferm.* [Internet]. 2023 [cited 2023 nov 13];44:e20220042. Available from: <https://doi.org/10.1590/1983-1447.2023.20220042.en>.
3. Ministério da Saúde (BR). Secretaria de Atenção à Saúde. Departamento de Ações Programáticas Estratégicas. *Atenção humanizada ao recém-nascido: Método Canguru: Manual técnico 3a ed.* Brasília: Ministério da Saúde; 2017. Acesso em: https://bvsmis.saude.gov.br/bvs/publicacoes/atencao_humanizada_metodo_canguru_manual_3ed.pdf.
4. Vale EG, Pagliuca LMF. Construction of a nursing care concept: contribution for undergraduate nursing education. *Rev. bras. enferm.* [Internet]. 2011 [cited 2023 nov 13];64(1). Available from: <https://doi.org/10.1590/S0034-71672011000100016>.
5. Alves FN, Azevedo VMGO, Moura MRS, Ferreira DMLM, Araújo CGA, Mendes-Rodrigues C, et al. Impact of the kangaroo method of breastfeeding of preterm newborn infants in Brazil: an integrative review. *Ciênc. Saúde Colet.* [Internet]. 2020 [cited 2023 nov 13];25(11). Available from: <https://doi.org/10.1590/1413-812320202511.29942018>.
6. Sales IMM, Santos JDM, Rocha SS, Gouveia MTO, Carvalho NAR. Contributions of the nursing team in the second stage of the Kangaroo-Mother Care Method: Implications for hospital discharge of the newborn. *Esc. Anna Nery Rev. Enferm.* [Internet]. 2018 [cited 2023 nov 13];22(4):e2018014. Available from: <https://doi.org/10.1590/2177-9465-EAN-2018-0149>.
7. Ferro SMFS, Araújo MAN, Miranda LN. Assistência de enfermagem ao recém-nascido na terceira etapa do método canguru: uma revisão integrativa. *CBioS.* [Internet]. 2017 [acesso em 13 de novembro 2023];4(1). Acesso em: <https://periodicos.set.edu.br/fitbiossaude/article/view/4571>.
8. Dias TS, Neves EB, Sagica LCM, Ferreira MA, Rodrigues DP, Paixão ANT, et al. Kangaroo method and nursing staff: experiences and applicability in neonatal UTI. *Rev. Enferm. Atual In Derme. In Derme.* [Internet]. 2023 [cited 2023 nov 13];97(3):e023179. Available from: <https://doi.org/10.31011/reaid-2023-v.97-n.3-art.1853>.
9. Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int. j. qual. health care.* [Internet]. 2007 [cited 2023 nov 13]; 19(6). Available from: <https://doi.org/10.1093/intqhc/mzm042>.
10. Bardin L. *Análise de conteúdo.* São Paulo: Edições 70, 2011, 229p.
11. Moraes EDA, Moura VCE, Freitas MG. A importância do cuidado de enfermagem ao recém-nascido prematuro

- acolhido no método canguru. *Revista JRG*. [Internet]. 2023 [acesso em 13 de novembro 2023];6(13). Disponível em: <https://doi.org/10.5281/zenodo.8075848>.
12. Cantanhede ES, Amorim FCM, Oliveira ADS, Almeida CAPL, Santos SM. Mothers' experiences in caring for premature newborn in the kangaroo method. *Cogitare Enferm.* (Online). [Internet]. 2020 [cited 2023 nov 13];25:e67416. Available from: <http://dx.doi.org/10.5380/ce.v25i0.67416>.
 13. Ferreira DO, Silva MPC, Galon T, Goulart BF, Amaral JB, Contim D. Kangaroo method: perceptions on knowledge, potencialities and barriers among nurses. *Esc. Anna Nery Rev. Enferm.* 2019 [cited 2023 nov 13];23(4):e20190100. Available from: <https://doi.org/10.1590/2177-9465-ean-2019-0100>.
 14. Alves FN, Azevedo VMGO, Moura MRS, Ferreira DMLM, Araújo CGA, Mendes-Rodrigues C, et al. Impact of the kangaroo method of breastfeeding of preterm newborn infants in Brazil: an integrative review. *Cien Saude Colet.* [Internet]. 2020 [cited 2023 nov 13];25(11):4509-20. Available from: <https://doi.org/10.1590/1413-812320202511.29942018>.
 15. Gesteira ECR, Braga PP, Nagata M, Santos LFC, Hobl C, Ribeiro BG. Kangaroo care method: benefits and challenges experienced by health professionals. *Rev. enferm. UFSM.* [Internet]. 2016 [cited 2023 nov 13];6(4). Available from: <https://dx.doi.org/10.5902/2179769220524>.
 16. Aires LCP, Koch C, Santos EKA, Costa R, Mendes JS, Medeiros GMS. Kangaroo-mother care method: a documentary study of theses and dissertations of the brazilian nurse (2000-2017). *Rev. bras. enferm.* [Internet]. 2020 [cited 2023 nov 13];73(2):e20180598. Available from: <http://dx.doi.org/10.1590/0034-7167-2018-0598>.
 17. Chisenga JZ, Chalanda M, Ngwale M. Kangaroo Mother Care: a review of mothers' experiences at Bwaila hospital and Zomba Central hospital (Malawi). *Midwifery.* [Internet]. 2015 [cited 2023 nov 13];31(2). Available from: <http://doi.org/10.1016/j.midw.2014.04.008>.
 18. Sousa DA, Gomes GLS, Torres IL, Araújo RV. Benefits of the kangaroo method for low-birth-weight newborns. *RSD.* [Internet]. 2023 [cited 2023 nov 13];12(3):e28012340853. Available from: <http://dx.doi.org/10.33448/rsd-v12i3.40583>.
 19. Gomes MP, Saráty SB, Pereira AA, Parente AT, Santana ME, Cruz MNS, et al. Mothers' knowledge of premature newborn care and application of Kangaroo Mother Care at home. *Rev. bras. enferm.* [Internet]. 2021 [cited 2023 nov 13];74(6):e20200717. Available from: <https://doi.org/10.1590/0034-7167-2020-0717>.
 20. Reichert APS, Soares AR, Bezerra ICS, Dias TKC, Guedes ATA, Vieira DS. Maternal experience with the kangaroo method at home. *REME rev. min. enferm.* [Internet]. 2020 [cited 2023 nov 13];24:e-1295. Available from: <http://dx.doi.org/10.5935/1415-2762.20200024>.
 21. Santana TP, Pinto DWS, Rodrigues RL, Silva CRG, Carvalho AR, Souza ACM. Difficulties in adhering to the Kangaroo Method from the nurse's perspective. *REAS.* [Internet]. 2022 [cited 2023 nov 13];15(3):e9920. Available from: <https://doi.org/10.25248/reas.e9920.2022>.
 22. Luz SCL, Backes MTS, Rosa R, Schmit EL, Santos EKA. Kangaroo Method: potentialities, barriers and difficulties in humanized care for newborns in the Neonatal ICU. *Rev. bras. enferm.* [Internet]. 2022 [cited 2023 nov 13];75(2):e20201121. Available from: <https://doi.org/10.1590/0034-7167-2020-1121>.
 23. Cañedo MC, Nunes CB, Gaiva MAM, Vieira ACG, Schultz IL. "I'm going home. And now?" The difficult art of the Kangaroo Method at home. *Rev. enferm. UFSM.* [internet]. 2021 [cited 2023 nov 13];11(52). Available from: <https://doi.org/10.5902/2179769263523>.
 24. Gomes MP, Saráty SB, Pereira AA, Parente AT, Santana ME, Cruz MNS, et al. Mothers' knowledge of premature newborn care and application of Kangaroo Mother Care at home. *Rev. bras. enferm.* [Internet]. 2021 [cited 2023 nov 13];74(6):e20200717. Available from: <https://doi.org/10.1590/0034-7167-2020-0717>.