

# International Journal of Health Science

Acceptance date: 12/03/2025

## NURSING CARE FOR PREMATURE AND LOW BIRTH WEIGHT NEWBORNS IN THE HOSPITAL UNIT

---

*Micaelly Targino Andrade da Silva*

*Cecília Targino da Silva*

*Micael Targino Andrade da Silva*

*Thais Monara Bezerra Ramos*

*José Uilson Ferreira Galindo*

All content in this magazine is licensed under a Creative Commons Attribution License. Attribution-Non-Commercial-Non-Derivatives 4.0 International (CC BY-NC-ND 4.0).



**Abstract: Introduction:** Premature birth is defined as birth between 22 and 36 weeks early. Premature newborns require a suitable environment for treatment, making it necessary for them to remain in hospital. It is up to the nursing team to provide a favorable environment with the necessary resources to care for the child during their hospital stay. **Objective:** To synthesize nursing care for premature and low birth weight newborns in hospital through the literature. **Materials and Methods:** This is a literature review carried out on credible websites, retrieving articles that deal with the subject, which were then analyzed and interpreted in the light of the literature. **Results and Discussion:** The nursing team has a very important role to play in caring for premature infants, especially given the great challenge of meeting the particularities and care that they need, avoiding complications that could damage their development and delay their discharge. The kangaroo method aims to ensure that low birth weight infants have safe skin-to-skin contact with their mothers, promoting humanized perinatal care. **Final considerations:** The nursing team should offer comprehensive care to premature and low birth weight newborns, so it is necessary for health professionals to provide information and support in an individualized way, respecting the history and needs of each one. **Keywords:** Newborn. Premature. Healthcare. Neonatal nursing.

## INTRODUCTION

In recent times, health research, the increase in technology and the fall in infant mortality rates have contributed to advances in newborn health care. Health agencies have been constantly concerned about the birth conditions of premature children, known as preterm and low birth weight children, who have been studied from different perspectives in the search to reduce the risk factors for neonatal problems (Brasil, 2021).

Premature birth is defined as birth before time, i.e. children born before the necessary time. The most commonly used characteristic to classify it is according to birth from 22 weeks to 36 weeks of gestational age (Silva, 2018). According to the World Health Organization (WHO, 2016), Brazil is among the ten countries with the highest rates of prematurity, accounting for 60% of the world's premature births. Among the causes pointed out in the literature, primiparity and maternal age, whether under 16 or over 40, have been the main factors for the increase in this rate (Silva, 2019).

According to Santos *et al.* (2021), premature care requires a trained multi-professional team, with the importance of assessing hospitalized patients and whether they will need to use a mechanical ventilator to help with breathing. The team is made up of doctors, nurses, nursing technicians and physiotherapists specialized in the area.

Therefore, Carvalho *et al.*, (2021) advocates that the newborn (NB), due to their conditions, remain in the hospital environment, as it is the appropriate place for them to develop and receive the care and treatment consistent with their conditions, favoring their growth. Thus, nurses promote this adaptation by observing the clinical condition, maintaining thermal balance, light, humidity, monitoring vital signs, sound and skin stimuli and analyzing the evolution of the NB.

In this sense, nurses play a fundamental role in the process of caring for the health of the population. Their work involves technical and scientific knowledge that enables them to offer the public the care needed to prevent, promote and maintain health. For this reason, nursing care is essential in all areas of health, as well as at all stages of an individual's life (Gomes, 2021).

With regard to pediatric care for premature newborns, the main purpose of nursing is to eliminate factors that can cause stress and pain, as well as biological, psychological and social sequelae, in addition to favoring aspects that help the child's development, by monitoring, guiding and performing the necessary procedures for healthy growth, based on the child's extremely important clinical needs (Santos, *et al.*, 2021).

The role of pediatric nursing in the development and care of children is of great importance. The pediatrician Carlos Arthur Moncorvo de Figueiredo was considered the "father of pediatrics", in which he institutionalized a specific space for the care of children, in addition to having formulated a teaching plan for a field that did not yet exist, that is, in addition to having developed child care, he created the first generation of pediatricians in Brazil (Venâncio, 2023).

Santos *et al.*, (2021), states that newborn care plays a crucial role, because from this care it is possible to perceive clinical conditions and some pathologies, which when observed early can favor health care, promoting a healthier life. Good care for babies can help to reduce the mortality rate and reduce the risk of future illnesses, such as diabetes mellitus.

The Kangaroo method is about the care offered to the newborn, with management based on the baby's needs, such as reducing hospitalization time, care aimed at reducing pain and stress, in addition to assisting families by promoting bonds between baby/mother/father, guiding and encouraging breastfeeding and support even after hospital discharge (Nunes, 2022).

Considering the fragility of premature newborns, it is essential to start the care process as soon as possible, and as well as taking care to reduce pain, stress and other problems that may occur, introducing food is necessary for the baby's development. In this sense, breastfeeding is ideal, as it contains all the nutrients that the NB needs to develop, and also contributes to reducing the risk of developing gastrointestinal problems due to intolerance to some substance in the formula (Dias; Hoffmann; Cunha, 2023).

According to Silva (2019), the professional nurse is able to attend to some of the particularities of the premature newborn in the care provided, such as apnea, feeding according to specificity, fragility of the skin, bones and body systems, such as the immune, respiratory, gastrointestinal and nervous systems.

My interest in the subject arose from the need to provide more scientific data on nurses' care for premature, low birth weight newborns. Although this subject is widely disseminated and implemented, constant updating is necessary due to the breadth of the topic.

In this sense, the aim of this study is to synthesize the literature on nursing care for premature and low birth weight newborns in hospital units.

## **MATERIALS AND METHODS**

This study is a literature review. This type of research is carried out using material that has already been published, based on literary sources, taken from digital or printed materials. This type of research gives the investigator access to a wide range of information that will contribute to the study (Gil, 2022).

The literature review was based on scientific nursing publications indexed in the Scientific Electronic Library Online (SCIELO) and Virtual Health Library (VHL) databases between 2020 and 2024. The following ESCRs were used for the research: premature newborn, health care and neonatal nursing

The inclusion criteria were complete documents, with at least two descriptors in their title, and which covered the content studied. Documents from before 2020, which were incomplete and did not cover the subject of this study, were excluded.

Subsequently, the data was collected, analyzed and interpreted in the light of the literature to compose this study.

## RESULTS AND DISCUSSION

Premature birth occurs between 20 and 37 weeks and can happen for two reasons: spontaneously or by medical indication. Spontaneous births occur due to the rupture of the membrane before the end of pregnancy, and elective births when necessary and due to some complications with the mother and/or the fetus. In addition, depending on the gestational age, it is classified as extreme prematurity if it occurs between 22 and 28 weeks, severe prematurity if it occurs after 28 and less than 32 weeks, and moderate prematurity if it occurs between 32 and less than 37 weeks (Turbano *et al.*, 2024).

The factors that can influence the growth of a fetus born prematurely can be characterized by birth weight, gestational age, pathologies, hereditary and environmental factors, and calorie intake. These factors will have an impact on the baby's growth and development, and can lead to short- and long-term complications. An example of this is that premature babies do not yet have all the necessary conditions for life outside the womb, and all organs are subject to complications, such as the respiratory, gastric, cardiovascular, renal, neurological and cerebral systems, among others. The bones, teeth and face are also affected, often requiring interventions. For this reason, these patients need special attention so that they can develop properly and achieve autonomy (Spezzia, 2020).

Considering that even if mothers attend their prenatal appointments and follow all the guidelines, premature birth can still occur, it becomes necessary to create a support network to help the baby develop, avoiding mortality due to a lack of specific care.

The Kangaroo Method emerged in Colombia at the end of the 1970s, with the aim of putting mother and baby in direct contact, through their skin, in order to improve the care offered. It was in the state of Pernambuco-Brazil that this method came to be recognized through the Professor Fernando Figueira Institute of Integral Medicine (IMIP), which at the time was called the "Kangaroo Mother Ward". This method is subdivided into monitoring the newborn (NB) in the Neonatal Intermediate Care Unit, then the participation of the parents in the care in the neonatal care unit and finally, home monitoring where monitoring takes place both in the hospital and in primary care, interspersed (Matozo, 2021).

According to Konstantyner *et al.* (2022), the kangaroo method has stages:

- Stage 1 - Prenatal care for high-risk pregnant women, with guidance, delivery and admission to the Neonatal Intensive Care Unit, where there is initial contact between the family and the newborn so that they become familiar with the care practices and neonatal services that will be provided.
- 2nd stage - Transfer of the newborn to the Neonatal Intermediate Care Unit, Kangaroo Method, at this stage the NB needs to be clinically stable, weighing at least 1,250 gr., with full enteral nutrition and the mother willing to carry out daily care, and breastfeeding will be prioritized.
- Stage 3 - In this phase, where the newborn is discharged, they will be monitored in a shared manner between the specialist team and the primary care team, until they reach 2,500 grams. However, the mother and her family

need to have confidence, security and the necessary information about the care so that they can continue with it properly. It is important that the NB gains weight every day and that breastfeeding or human milk substitute is prioritized.

In view of the above about the importance of the kangaroo method, it is worth emphasizing that the nursing professional has a very unique role in this process, since it is he who will be in direct contact, offering care and attention to both the NB and the family, promoting a moment of interaction and bonding between the two (Brito *et al.*, 2020).

In order to be able to promote this relationship, professionals need to be aware of the Ministry of Perinatal Health's Ordinances: No. 569/2000, No. 1.0667/2005 and No. 1.459/2011, which deals with reducing the time the newborn is separated from its mother, with the aim of promoting the necessary thermal control, reducing the risk of contracting hospital infections, stress and pain in newborns, encouraging breastfeeding, benefiting psycho-affective and neurobehavioral development, as well as strengthening ties between the family and professionals, and reducing recurrences of hospitalizations (Moraes; Moura; Freitas, 2023).

Among the health conditions that favor low birth weight and premature infants is the encouragement of breastfeeding, which implies offering a diet capable of favoring the integral development of the newborn without causing gastrointestinal problems. It is important to guide mothers about breastfeeding not only because it contains all the nutrients that the NB needs, but it also contributes to the mother's recovery in the postpartum period (Dias, Hoffmann, Cunha, 2023).

The studies by Santos and Azevedo (2016) show that weight gain is an important factor in the child's improvement, so breastfeeding is essential, as mothers of premature babies produce a special milk, with a higher protein

content, in terms of calories, sodium and less lactose, for the preterm baby, which is still essential due to its immunological and nutritional properties, as well as improving coordination, swallowing and sucking through movements involving the mouth and tongue.

The development and growth of premature newborns depends on the care offered, but also on specific factors, such as the ability to suck, which influences both nutritional status and neurodevelopment, demonstrating that the baby is developing properly. It can be seen that maturation, training and experiences are fundamental for effective sucking, knowing that this will influence the success of feeding and consequently weight gain, which are necessary for the full development of the NB (Cunha; Diniz; Barreiros, 2021).

With regard to the technologies used by health professionals to care for premature newborns and their families, light technology encompasses the form of care, which has brought great benefits in the way care is provided. With light technology, professionals have offered a more humanized, individualized service, thinking of the subjects in a holistic way, with a warm welcome, management of actions and the creation of an interpersonal relationship of respect and trust, which are fundamental to the quality of the services provided (Campagnoli *et al.*, 2023).

Scientific progress has played a crucial role in reducing the neonatal mortality rate. In this context, the role of the nursing professional is crucial, as they guide families, clarify doubts, encourage participation in the process of caring for the newborn, analyze and debate the prognosis, providing humanized and respectful care. This support is aimed at the development of the newborn and the understanding and involvement of the family in this process, ensuring that the objectives are achieved safely and without interventions (Nascimento *et al.*, 2022).



According to the Ministry of Health, in order to start the newborn's adaptation to life outside the womb, the nursing team should carry out washing, warming up, assessment and early opportunization procedures.

## FINAL CONSIDERATIONS

Prematurity is birth before 37 weeks of gestation and brings with it major challenges for the newborn, the mother and the medical team. The kangaroo method has shown excellent results and has been used in various places as a way of promoting the integral development of premature newborns, as well as establishing a bond with the mother and the environment.

From this perspective, the role of nursing is crucial, as this professional, who has contact with mothers and family members, must guide

them on the importance of this method, and how the family should proceed to contribute to the evolution of premature NBs. Nursing care goes beyond technical care, as recommended in the Ministry of Health's ordinances. The professional needs to care for everyone in a humanized, affectionate way, offering the necessary information and guidance so that everyone can contribute to the development of the premature newborn, from birth to hospital discharge, since the premature baby will need care even after leaving the hospital.

In this sense, it can be said that nursing care has increasingly taken on a broader and more important role in caring for people. And in order for this care to be adequate, it is essential that the professional is always up-to-date with the regulations on the issues surrounding their working environment.

## REFERENCES

- BRASIL. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Ações Programáticas Estratégicas. Atenção humanizada ao recém-nascido: Método Canguru: **manual técnico**. 3. ed. Brasília: Ministério da Saúde; 2017. 340 p. » <https://doi.org/10.1371/journal.pone.0277773> Acesso: 03 set 2024
- BRASIL. Ministério da Saúde. Nota técnica para organização da rede de atenção à saúde com foco na atenção primária à saúde e na atenção ambulatorial especializada - saúde da criança. São Paulo: Hospital Israelita Albert Einstein, Sociedade Beneficente Israelita Brasileira Albert Einstein, **Ministério da Saúde**; 2021. 72 p.
- BRASIL. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Ações Programáticas Estratégicas. Método Canguru: **manual da terceira etapa do Método Canguru na Atenção Básica**. Brasília, 2018.
- BRITO, A.C.M. A importância da enfermagem para uma execução efetiva do método canguru, **Research, Society and Development**, v. 9, n. 12, e30091211102, 2020. DOI: <http://dx.doi.org/10.33448/rsd-v9i12.11102> Acesso: 12 set 2024
- CAMPAGNOLI, Y.M. O impacto das tecnologias leves na assistência de enfermagem ao pré-natal, **Revista Eletrônica Acervo Saúde**, VOL.23(8), Americana/SP, 2023. DOI: <https://doi.org/10.25248/REAS.e13068.2023> Acesso: 03 set 2024
- CARVALHO, N.A.R. et al. A transição do cuidado do recém-nascido prematuro: da maternidade para o domicílio, *Acta Paul. Enfermagem*, n. 34, 2021. DOI: <https://doi.org/10.37689/acta-ape/2021AR02503> Acesso: 03 set 2024
- CUNHA, M.; DINIZ, A. BARREIROS, J. Moderação e mediação na análise do padrão de sucção não nutritiva em recém-nascidos prematuros, **Millenium**, 2(nº14), 37-45. DOI:10.29352/mill0214.21339, 2021. Acesso: 01 set 2024
- DIAS, A.L.P.O.; HOFFMANN, C.C.; CUNHA, M.L.C. Aleitamento materno de recém-nascido prematuro em unidade de internação neonatal, **Revista Gaúcha de Enfermagem**, 44:20210193, 2023. doi: <https://doi.org/10.1590/1983-1447.2023.20210193.pt> Acesso: 11 set 2024
- GIL. A.C. Como elaborar projeto de pesquisa, São Paulo, **Atlas**, 2022.

GOMES, E.D. Atuação da equipe de enfermagem no manejo e avaliação da dor em recém-nascidos hospitalizados, Repositório de trabalhos de conclusão de curso, UNIFACIG, 2021.

KONSTANTYNER, T. Et al. Benefícios e desafios do método canguru como estratégia de humanização e saúde, **Rev. Bras. Saúde Mater. Infant.**, Recife, 22 (1): 7-9 jan-mar., 2022. DOI: <http://dx.doi.org/10.1590/1806-9304202200010001> Acesso: 12 nov 2024

MATOZO, A.M.S et al. Método canguru: conhecimentos e práticas da equipe multiprofissional, **Revista Enfermagem Atual In Derme**, v.95, n.36, 2021. Disponível em: <https://doi.org/10.31011/reaid-2021-v.95-n.36-art.1237> Acesso: 19 out 2024

MORAES, M.E.A.; MOURA, V.C.E.; FREITAS, M.C. A importância do cuidado de enfermagem ao recém-nascido prematuro acolhido no método canguru, **Revista JRG de Estudos Academicos**, ano 6, v.6, n.13, 2023. DOI: 10.5281/zenodo.8075848 Acesso: 08 set 2024

NASCIMENTO, L.C. et al. Assistência de enfermagem ao recém-nascido prematuro, **Brazilian Journal of Development**, v.8, n. 4, p.27036-27055, 2022. DOI:10.34117/bjdv8n4-285 Acesso: 12 set 2024

NUNES, A.M.L A importância do método canguru para recém-nascidos prematuros e/ou de baixo peso ao nascer, **Revista Ibero-Americana de Humanidades, Ciências e Educação-REASE**, São Paulo, v.8.n.02.fev. 2022. doi.org/10.51891/rease.v8i2.4186 Acesso: 02 nov 2024

ORGANIZAÇÃO MUNDIAL DA SAÚDE. OMS: cerca de 30 milhões de bebês nascem prematuros por ano no mundo [Internet]. Nações Unidas no Brasil; 2018.

OLIVEIRA AIB, Werne M, Legnaro BSC, Maraz TL, Corasini I, Petruccelli G. Visita domiciliar às mães de recém-nascidos prematuros e baixo peso. **Rev Recien**. 2021;11(36):539–50. doi: <http://dx.doi.org/10.24276/rrecien2021.11.36.539-550> Acesso: 12 set 2024

SANTOS, A.L.M. et al. A atuação do enfermeiro na assistência ao recém-nascido prematuro, **Research, Society and Development**, v. 10, n. 13, e550101321455, 2021. DOI: <http://dx.doi.org/10.33448/rsd-v10i13.21455> Acesso: 12 set 2024

SANTOS, Maria Helena; DE AZEVEDO FILHO, Francino Machado. Benefícios do método mãe canguru em recém-nascidos pré-termo ou baixo peso: uma revisão da literatura. **Universitas: Ciências da Saúde**, v. 14, n. 1, p. 67-76, 2016.

SANTOS, G.L.A. et al. Implicações da Sistematização da Assistência de Enfermagem na prática profissional brasileira, **Rev Esc Enferm USP**; 55:e03766, 2021. <https://doi.org/10.1590/S1980-220X2020023003766> Acesso: 10 set 2024

SANTOS, T.C.; OLIVEIRA, A.C.D. Suporte da enfermagem nos cuidados ao recém-nascido, **Revista Saúde dos Vales**, ISSN: 2674-8584, v. 1, n.1, 2023. Disponível em: <http://revista.unipacto.com.br/index.php/rsv/article/view/251> Acesso: 10 set 2024

SILVA, R.M.M. et al. The vulnerabilities of premature children: home and institutional contexts. **Rev Bras Enferm**. 2020;73(Suppl 4):e20190218. doi: <http://dx.doi.org/10.1590/0034-7167-2019-0218>. PubMed PMID: 32965406. Acesso: 08 set 2024

SILVA, H.L.L. et al. Maternal perception regarding the use of the kangaroo method: an integrative review. **RSD [Internet]**. 2020 [cited 2023 Sep 25];9(7):e886975146. Available from: <https://rsdjournal.org/index.php/rsd/article/view/5146> Acesso: 16 set 2024

SOUZA, V.R., et al. Tradução e validação para a língua portuguesa e avaliação do guia COREQ. **Acta Paul Enferm**. 2021;34:eAPE02631. doi: <http://dx.doi.org/10.37689/acta-ape/2021AO02631>. Acesso: 12 set 2024

SPEZZIA, S. Malocclusão e prematuridade ao nascimento, *Journal of Oral Investigations*, Passo Fundo, vol. 9, n. 1, p. 67-81- ISSN 2238-510X, 2020. DOI: <https://doi.org/10.18256/2238-510X.2020.v9i1.2805> Acesso: 10 out 2024

TURBANO, M.E.N. et al. A prematuridade e seus fatores associados: uma revisão narrativa de literatura, **Revista Científica Multidisciplinar**, ISSN 2675-6218, e565342, v.5, n.6, 2024.

VENÂNCIO, K.R.F. CENTRO DE PEDIATRIA HUMANIZADO DE CATALÃO: Nova proposta para um Centro de Atenção às crianças e adolescentes de Catalão GO, **TCC, UNA**, 2023.