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MONITORING OF PREMATURE INFANTS IN THE THIRD STAGE OF THE KANGAROO METHOD: PERSPECTIVE OF PRIMARY CARE NURSES

ACOMPANHAMENTO DO PREMATURO NA TERCEIRA ETAPA DO MÉTODO CANGURU: PERSPECTIVA DE ENFERMEIRAS DA ATENÇÃO PRIMÁRIA

ACOMPAÑAMIENTO DEL PREMATURO EN LA TERCERA ETAPA DEL MÉTODO CANGURO: PERSPECTIVA DE ENFERMERAS DE LA ATENCIÓN PRIMARIA

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Objective: to describe the follow-up of the preterm newborn in the third stage of the kangaroo method from the perspective of Primary Care nurses. Method: a qualitative, descriptive and exploratory study conducted in the basic health units of the city in the interior of Bahia, with nine nurses. The semi-structured interview and content analysis of Bardin were used. Results: nurses understand what a premature infant is superficially, but do not understand exactly how the Kangaroo Method works. Among the facilities, the help of Community Health Agents stand out, and the difficulties that prevailed most were the fragility in the reference and counter-reference. Final considerations: in view of this, it is evident the need for continuing education for nurses in Primary Care, the systematization of the third stage of the Method and professional training for nursing in order to improve information about the premature child, to disseminate knowledge that favors the service to this public.

Descriptors: Child Care. Premature Newborn. Nursing. Primary Health Care. Kangaroo Method.

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Objetivo: descrever o acompanhamento do recém-nascido pré-termo na terceira etapa do método canguru na perspectiva de enfermeiras da Atenção Primária. Método: estudo qualitativo, descritivo e exploratório realizado nas unidades básicas de saúde do município do interior da Bahia, com nove enfermeiras. Utilizou-se a entrevista semi-estruturada e a análise de conteúdo de Bardin. Resultados: as enfermeiras compreendem o que é um prematuro superficialmente, porém não entendem exatamente como funciona o Método Canguru. Dentre as facilidades, destaca-se o auxílio dos Agentes Comunitários de Saúde e quanto às dificuldades a que mais prevaleceu foi a fragilidade na referência e contrarreferência. Considerações finais: em vista disso, evidencia-se a necessidade da educação permanente para as enfermeiras da Atenção Primária, da sistematização da terceira etapa do Método e da formação profissional para enfermagem no intuito de melhorar a informação a respeito do prematuro, de modo a disseminar conhecimento que favoreça o atendimento a esse público.

Descritores: Cuidado da Criança. Recém-Nascido Prematuro. Enfermagem. Atenção Primária à Saúde. Método Canguru.

Objetivo: describir el acompañamiento del recién nacido pre-término en la tercera etapa del método canguro en la perspectiva de enfermeras de la Atención Primaria. Método: estudio cualitativo, descriptivo y exploratorio realizado en las unidades básicas de salud del municipio del interior de Bahía, con nueve enfermeras. Se utilizó la entrevista semi-estructurada y el análisis de contenido de Bardin. Resultados: las enfermeras comprenden lo que es un prematuro superficialmente, pero no entienden exactamente cómo funciona el Método Canguro. Entre las facilidades, se destaca la ayuda de los Agentes Comunitarios de Salud y en cuanto a las dificultades que más prevaleció fue la fragilidad en la referencia y contrarreferencia. Consideraciones finales: en vista de ello, se evidencia la necesidad de la educación permanente para las enfermeras de la Atención Primaria, de la sistematización de la tercera etapa del Método y de la formación profesional para enfermería con el fin de mejorar la información acerca del prematuro, de modo a diseminar conocimiento que favorezca la atención a ese público.

Descriptores: Cuidado del Niño. Recién Nacido Prematuro. Enfermería. Atención Primaria de Salud. Método Canguru.

Introduction

Prematurity is the main cause of death of newborns (NB) and children under five years, representing about one in three neonatal deaths[1]. This fact is caused by multiple and unpredictable factors, which disregard places and social classes, and affect the family structure, modifying expectations and desires, and society through social and financial cost. In this context, it is understood the need for a thorough follow-up for these babies, which should start from prenatal care and extend to school age[2].

According to the new report "Born Too Soon", of every ten babies born, one is premature and every 40 seconds one of these dies. In 2020, around 13.4 million premature newborns (PTNB) were born, with almost one million dying from premature complications. Another point presented involves social and environmental issues, stating that conflicts, climate change and Coronavirus disease 2019 (COVID-19) have contributed to the increased risks directed at women and babies worldwide[1].

Premature birth is a risk factor for the growth and healthy development of the child, as it is responsible for the establishment of chronic health conditions. The more premature the baby, the more the baby will present clinical fragility and social vulnerability and, consequently, problems of growth and development in addition to chronic pathologies(3,4).

Given the particularities found in the PTNB, the Kangaroo Method (KM) was created in 1979 in Colombia, which would later be implemented in Brazil through the Ministry of Health (MH) as a policy, with the aim of humanizing the attention paid to the low birth weight newborn, increasing the mother-child bond through skin-to-skin contact and thus contributing to the quality of his/her neurobehavioral and psycho-affective development[5].

This method is divided into three stages, and the first begins in prenatal care with the identification of the risk situation that shows the need for specialized care for the pregnant

woman, which can lead to the hospitalization of the newborn in a Neonatal unit, the Neonatal Intensive Care Unit (NICU) or the Conventional Neonatal Intermediate Care Unit (NInCU)[2].

The second stage occurs in the Neonatal Kangaroo Intermediate Care Unit (NKInCU), where the mother assumes most of the care for her child. And the third stage begins with hospital discharge and involves the care of the newborn and his/her family in the extra-hospital space, in addition to the monitoring being in partnership between the maternity hospital and the Basic Health Unit[2].

The monitoring of the PTNB should be performed by correcting the chronological age according to the degree of prematurity, in order to obtain a correct diagnosis of growth, identify early changes in development in the first years of life, guide parents and recognize the needs of the family through the follow-up service. However, the lack of this stage in several Primary Care (PC) Health Units contributes to the deficiency in the identification and adequate care of these newborns[6].

Given this, the guiding question delimited was: how is the monitoring of PTNB by the nurse in Primary Care (PC) after hospital discharge from the second stage of the Kangaroo Method? Thus, the general objective is to describe the follow-up of the preterm newborn in the third stage of the kangaroo method from the perspective of Primary Care nurses.

Method

This is a qualitative, descriptive and exploratory study. The study scenario was the basic health units (BHU) of a city in Bahia, which are considered the gateway to the Unified Health System (UHS) and the first level of care for access to the health care network.

The participants were eight female nurses and one male nurse. The study included: nurses with at least 6 to 12 months of experience in the Basic Health Unit - considering this minimum time to have assisted any premature child - and who accept to participate voluntarily in the study. The exclusion criteria were: being away from care, on vacation or leave.

The interviewees were scheduled in advance by visiting the researcher in the unit, moment when the research was presented and they were invited.

Data collection occurred during the month of April 2022 and interviews were conducted with an average duration of 20 minutes, in a reserved room in the nursing office, in the afternoon shift, due to lower flow of care. The data collection technique was the semi-structured interview, with the following guiding questions: talk about the nursing consultation for the children's GDM? If this child was born premature, how do you act? What do you know about the Kangaroo Method? How does the referral of the PTNB from maternity to Primary Care occur? In your opinion, what are the difficulties/facilities for the GDM of the PTNB in Primary Care?

The interviews were recorded, with the authorization of the participants who agreed to be part of the research. After collection, the information was transcribed and stored for analysis.

Data analysis occurred in stages, through Bardin's Content Analysis[7], through which three categories emerged: monitoring of growth and child development by the nurse; monitoring of the premature baby in Primary Care by the nurse: (des)continuity of the third stage of the kangaroo method? and facilities and difficulties in the monitoring of PTNB by Primary care.

After the transcription, the interview was read to have a first contact with the texts in order to understand what the participants transposed in their speeches. In the second stage, there was the separation of ideas and phrases that presented convergences and divergences of the participants in relation to the theme. In the third stage, the organization and mapping of the similarities and differences of the participants' speeches was done by performing successive re-readings of the interviews' speeches, in order to outline the first ideas and select the categories that supposedly answered the research questions.

This study complied with the ethical principles adopted by Resolutions 466/2012 and 674/2022 of the National Health Council (CNS)[8,9]. It was also ensured that no expenditure was generated for the UHS and that non-interference was guaranteed in the routine of health care services, according to the CNS Resolution 580/2018[10]. The study was approved by the Research Ethics Committee of the State University of Feira de Santana (CEP/UEFS), with C.A.A.E. opinion 52399021.2.0000.0053. Since it is a qualitative research, all stages meet the criteria of the Consolidated criteria for Reporting qualitative research (COREQ)[11].

Participants were previously informed about the objectives of the study and the guarantee of anonymity was ensured by the signing of the Informed Consent Form (ICF). The codes Nur1, Nur2 and subsequent were used and all were free to refuse to participate or withdraw their consent at any time without any penalty, thus enabling the principles of confidentiality and autonomy.

Results

Nine nurses were interviewed, being one male and the other female. The predominant age group in this study was 26–55 years. As for the time of training, the working nurses have an average of 1 to 14 years of training and in relation to the existence of post-graduation, there was a diversity of areas of knowledge, being 3 professionals in Urgency and 2 in Occupational Health, 1 of which has specialization in Mental Health, 1 in Nursing Audit and 2 do not have, thus showing the lack of appreciation of professional qualification in PC, especially concerning the performance of the nurse once they do not present qualification at the level of specific specialization in Family Health or at least in Child Health.

Monitoring of growth and child development by the nurse

Understanding that the child's health should be a priority in the service is fundamental to meet his/her needs. Due to the child's vulnerability, this group needs a holistic look, active, qualified and welcoming listening, in order to obtain individualized care and consequently the formation of a link between the child and the health professional.

The singular look at the child and the recognition of his/her vulnerability are perceived in the need to prioritize the care of the child over other activities:

> *Whenever I assist a child I always say this morning I do not bandage, right? I get into the room, assist the child, then I think the other things have to differentiate* [...]. *So these children need an embracement in this regard* (Nur5).

The routine of analyzing the birth history is evident in the speeches of the participants, being considered the first attitude to be taken in this follow-up:

> *The first thing in the first consultation is to look for the pregnancy history. So, the issue in the case of the breastfeeding woman was whether she had any problems during pregnancy, whether she had any complications, whether it was high-risk prenatal care, whether it was not high-risk prenatal care, how many weeks the baby was born, what were the baby's birth parameters like?* (Nur6).

> *I ask her where she had prenatal care, if she did it with me and I'm already attending, I'll know. But if not, I ask, where did you have prenatal care? Have you done all the consultations? How was your pregnancy? I like to ask this during the first appointment so I can have an idea and we can discuss, if there were any complications? Or not?* (Nur9).

After the anamnesis, one should start the physical examination cerebrospinal, which objective is to evaluate the general aspect of the NB, presence of primitive reflexes, added to the evaluation of growth and development. However, in practice, the monitoring of growth and development of children (GDM) is focused only on the evaluation of anthropometric measures, thus showing a possible standardization in growth monitoring, being restricted the evaluation of these milestones:

In childcare we only look at the issue of measurements, we look at circumferences, weight, height [...]. *When you take a measurement that you put on a scale, you see that on the graph you are gaining too much weight, you have gone too high or too low* (Nur2).

It depends on each month, for example: we look at head, chest, abdominal circumference, weight and height are the measurements we look at in childcare and it is up to one year of age that we take these measurements (Nurse4).

Monitor and now with those percentiles, right? Height, weight, head circumference (Nur6).

Regarding the evaluation of development, only in a single speech is noted the care in evaluating this indicator, as well as the recording and monitoring of the evolution of the child through the graphics present in the child's booklet:

Also those scales that we use to see the issue of growth and development, right? From how long, right? The speech, the look, if it supports the head, if it already has strength, right? In the limbs to be able to balance and then gradually within the scales we follow (Nur6).

Monitoring premature babies in Primary Care by nurses: (dis)continuity of the third stage of the kangaroo method?

When it comes to monitoring the PTNB, it is important to know what a premature infant is and his/her specificities for an adequate monitoring and, consequently, a good development. Understanding that assisting a PTNB requires much more than a few consultations is essential because it is necessary to have a multiprofessional care to assist each of the particularities.

On the other hand, during this study, there was a lack of understanding about the conditions that may interfere with the proper development of children in early childhood, especially regarding low weight:

There is no way to care for a premature baby because every premature baby is no longer born with the appropriate weight. He's born depending on how many weeks he has, right? Which we find from thirty-seven onwards. Less than thirty-seven! Then we... he will never be born at the right weight. So he will never be discharged without being at the appropriate weight. So we don't monitor the unit, there is no possibility of doing childcare for a really low weight child. (Nur2).

Regarding the KM, there was a consensus in the nurses' speeches about this occurring only in the hospital reinforcing the old idea of care centered at a single level of attention:

I know little because it's very specific. Also specific of the hospital network. (Nur1).

I know that the kangaroo method is more applied in the hospital (Nur2).

The limitation of the method, the kangaroo position, perceived in some speeches of the participants, which confirms the lack of discernment regarding the differentiation of both:

It's another method of the mother, of bonding, right? With mother and child! Skin-to-skin contact too. And to help strengthen bonds, even strengthen the child's immunity. All of this... (Nur1).

With the Kangaroo Method, there is that skin-to-skin contact and the contact is always close to the mother, it increases, right? Reduce the consequences of premature birth within the child, right? You notice this issue a lot, right? That the delay is reduced. Some issues are reduced with this maternal contact, right?? (Nur6).

Regarding knowledge about the stages of the KM in Primary Care, nurses were unaware of their existence and even affirm that they do not perform in the unit:

No! I have no idea of what it is (Nur1).

We don't use the Kangaroo method here! (Nur2).

Consultation to monitor the growth and development of the PTNB

On the consultation itself of the PTNB, the participants point out the need to know the history of childbirth and the conditions of birth to compose the anamnesis of the premature child:

We first try to find out the reason for prematurity, why the child was born prematurely. Was it, did the labor start early? Was it a high-risk pregnancy? First we identify this (Nur4).

So, during the consultation, I would first find out the cause of prematurity. What happened during pregnancy? Was it an emergency birth? Why was it bleeding? Was it an accident? Is there already a history of premature birth? I there already a history of premature child? To first understand the issue of prematurity (Nur6).

Regarding the application of corrected age, only Nur4 reports its need:

And we cannot relate a premature child to a normal child. So, there are issues of corrected age, which we have to calculate and we have to take another look at premature children (Nur4).

The statements of the nurses evidenced the understanding about the need for evaluation and monitoring of the growth and development of the PTNB differently and more constantly compared to the normal child. Nur5 and Nur8 emphasize the weekly monitoring to measure weight gain, unlike Nur9, who does not establish a period, only going to the unit before the 30 days. Nevertheless, in this study, at no time did they mention the continuity of GDM in children above 12 months:

> *I make it weekly because to seek the weight gain, there is no such thing of coming monthly, it's already weekly or fortnightly. So we can see the weight gain* (Nur5).

> *He came more times a week, because we noticed that he lost weight, right? We checked his weight, but the assistance was monthly to see the perimeters, to be able to help her with things as well*. (Nur8).

> *The only difference is that I also ask her to come in less than thirty days. I always ask to come before completion, so we can see and really follow* (Nur9).

Regarding the knowledge about the particularities of the PTNB, superficial information about their characteristics was observed and, at no time, they cited complementary actions to assess the progress of the baby's development. Only Nur9 revealed the mother's participation in the NB care:

> *Because we already know that development may have some type of delay, so she will not have an appropriate weight for her age, so we have to discern to see if she will grow* [...] *She will have normal growth but less than what would be normal for her age* (Nur6).

> *I advise the mother that sometimes when she eats she will be regurgitating a little more, because her stomach is smaller, so some things will also depend on how the mother reaches me* (Nur9).

Facilities and difficulties in the monitoring of PTNB by Primary Care

In the context of the follow-up of the PTNB by Primary Care, the facilities and difficulties encountered by professionals emerged. Among the facilities are the Community Health Agents (CHA), given the fundamental role they play and their proximity to the community in each territory:

> *With the mother still in the postpartum period and then we see, or it can also be reported by the CHA. They find out about the birth because we ask every end of the month we ask if there have been any live births in their micro area and then we ask to follow up. Then he comes with the news from there, if it's a premature child, if it's not, if it was a cesarean section, if it was a natural birth and that's it for me. That child's first impressions* (Nur1).

> *He had a lactose intolerance, so he went back and forth to the hospital and was admitted. This contact was through the community agent who is the main key to our work. Because we work with the coverage area, so normally when this woman has this child, this family, there is any difficulty, this agent comes to the house. Then he signals to us* (Nur5).

Regarding the difficulties, there was a consensus regarding management, and the nurses' speeches showed that management is the main challenging aspect for the GDM of the PTNB:

> *The difficulties I still find are the embracement issue, I still think that this issue needs to be improved in the network. And technology, in relation to hard technology, like the scales, for example, our scales arrived late, a tape to measure an anthropometric measurement, we buy* (Nur5).

> *We live in many situations. Hard lately. So working is being very complicated, very complicated... even the basics are being guided by the city today, so it's for more specific programs* (Nur1).

Faced with the speeches, the lack of basic materials, such as scale and measuring tape, essential for the monitoring of physical growth and adequate embracement, is signalized as obstacles to GDM.

Another impasse that involves management is the flow of the Health Care Network that contributes to the inability to ensure continuous care:

> *The biggest difficulty would be making the network really flow* (...) *Is the UHS beautiful? Yes. It's wonderful; However, we aren't able to solve the problem within the ideal time. Even though you have everything, you don't have everything in time to resolve it. So maybe it's something that you could delay or block and ends up developing another problem, because at the moment you were supposed to interrupt comes there comes bureaucratic part*. (Nur6).

Another difficulty refers to the PTNB hospital discharge report, which, in turn, is commonly brought by the mother in the first GDM consultation as mentioned by the nurses:

> *They usually arrive with a discharge report and then, at the first consultation, we immediately see everything that happened at discharge.* (Nur7).

> *I only find out about the follow-up if I look at the medical records, if the doctor describes what was done, or if the patient brings it and reports it. Not every professional describes everything. So it's more about the mother's words. What she reports to me or what I see in some report, some medical prescription.* (Nur4).

In this context, Nur8 cites the failure to communicate between hospital and primary care as one more another difficulty:

> *It would be good to have feedback from the hospital. To talk about everything, she who told us that he was born with low birth weight, but when they left, she was asked to bring him here so we could monitor him. The reference form only stated that he would need to follow up with only GDM, only GDM. She was the one who talked about weight, we're looking at the weight... but there's not much, much connection.* (Nur8).

The care of the NB by the multidisciplinary team is also an obstacle:

> *And then the premature baby returns to the hospital. They follow up with the pediatrician at the hospital. Usually there, I don't know in other hospitals. Then they are monitored by the pediatrician until a certain age. It's done with neuro and I think with the speech therapist, the physiotherapist also there at the hospital* (Nur7).

> *Besides here, they do monthly follow-up there. Then they already schedule an appointment there, he has an appointment with the physiotherapist, because he needs it, because his breathing is difficult, this premature baby, he sees a pediatrician every month, he has a neurologist, now he would go through the consultation with a neurologist already scheduled there* (Nur8).

Regarding the training of professionals concerning the kangaroo method, there is no permanent education practice to address this issue, as reported by Nur2:

> *I think that's it, I think it's the lack of... I don't mean knowledge, because we have the basics, now it's the lack of that deeper knowledge about that particular situation. But about prematurity, like many others, that's it, you don't have that knowledge, you don't have that deeper knowledge of how you're going to act. You only have that there, the basics of how you are going to direct it. You don't have that more critical, deeper look!* (Nur2).

Discussion

According to the results found, in relation to general GDM, Primary Care is able to perform such assistance, even when we relate to the premature. However, it was noticed that the nurses interviewed understand what a premature is, although this knowledge is superficial to the point of not knowing how to guide the GDM to this public and not understanding exactly how the Kangaroo Method works.

Among the facilities, the help of the CHA in strengthening the bond stands out; on the difficulties that prevailed, most are related to the hospital that inserts the premature in the KM, the speeches showed a fragility in communication with the PC and in the referral of the baby to the same.

The GDM should be performed preferably by the PC through the Family Health Strategy (FHS). The GDM consultation is a guiding axis of comprehensive health care for children in primary care and should include actions of health surveillance, evaluation of anthropometric indexes, development, immunization and control of health problems, as well as guidance on feeding, hygiene and systematic registration in the Child Health Record (CHR)[12].

In the case of the consultation of GDM by nursing, the National Policy of Comprehensive Care for Child Health (PNAISC) highlights as one of its principles universal access to health, which includes embracement, qualified listening, risk classification and vulnerabilities, individualized care and referrals when necessary[12].

The first consultation should begin with the anamnesis, investigating the conditions of the child's birth, such as birth weight, type of delivery, Apgar index, gestational age, in addition to family and obstetric history[13]. Thus, it was observed that nurses emphasize in their consultation the need to understand the birth conditions of this NB, as well as the history of pregnancy, so that there is really an individualized care to meet all the NB's needs.

In relation to growth evaluation, it is recommended to measure growth indicators, such as height, weight, head circumference (HC), thoracic circumference, as well as the closure of fontanelles and sutures. The MH considers weight, height and HC as basic measures to be evaluated during the consultation and as a way

of monitoring this growth, the percentile and standard deviation systems (Z score) found in the CHR are used[14].

The measurement of the head circumference is very important to assess the size of the head and brain, because its peak growth is in the postnatal period from 0 to 24 months. Even with small standard deviation and little variation depending on the age group, any change in HC may indicate macro or microcephaly[14].

Regarding the evaluation of development, studies carried out in Brazil showed a low appreciation by nurses concerning information regarding child development, these findings are confirmed by the absence or incomplete completion of records in the CHR[15,16].

After hospital discharge, the follow-up of the PTNB care will be in the PC. It is recommended its scheduling from the maternity hospital, so that this baby appears in the unit between the 3rd and 5th day[12]. This first meeting can be held by the nurse or the doctor, and this moment aims to identify difficulties, risks and vulnerabilities of both the mother and the NB, and should be associated with home visits to ensure continuity of care for the mother and baby at home[12].

Conditions that may interfere with the proper development of children in early childhood have been established, namely: family risk/vulnerability situation; family with child presenting one of the following risk/vulnerability conditions at birth or acquired later: preterm and/or low birth weight NB, high risk if gestational age <32 weeks and/or weight <1,500 g, NB with lower CW than expected for age and sex (microcephaly) or child with inadequate growth of the CW and or neurological changes of the CNS, NB from hospitalization in neonatal unit (ICU), with conditions that characterize high risk at birth: asphyxia at birth (Apgar <7 in the 5th minute of life), NB/child with chronic disease, with multiple hospitalizations, child with malnutrition/obesity, NB/child with malformation or congenital or acquired deficiency after birth[12].

In relation to the assistance of the PTNB, the kangaroo method becomes evident, which consists of a public health policy that works from three stages, once the third stage begins with hospital discharge and follows until the child gets the weight of 2,500 grams and forty weeks of corrected gestational age[17].

Historically, this follow-up was performed exclusively in specialized follow-up outpatient clinics. However, since 2012, the MH has been articulating shared care with primary care, due to the importance of the FHS to promote care and reduce morbidity and mortality after discharge[17].

On the understanding of this practice, there is a reductionism to the kangaroo position and, in this sense, it is important to differentiate them. The first is characterized as neonatal care that promotes skin-to-skin contact between the baby and the mother, allowing greater participation of parents in care; the kangaroo position consists of placing the NB in an upright position against the breast and surrounded by a strip, in order to transmit heat, promote sensory stimulation, adequate oxygenation, reduction of crying and others[17].

Although there is the reductionism discussed earlier, there is a brief knowledge of the benefits that this assistance promotes to the binomial, in addition to the increase of the bond, such as the strengthening of immunity through breastfeeding, reduction of sequelae caused by prematurity providing a better neuromotor development in this NB.

Regarding the knowledge about the stages of KM in Primary Care, it was noted that nurses do not understand what the kangaroo method is, what stages make it and, especially, the functions of Primary Care in the third stage. Therefore, it is visible that professionals have a superficial understanding limited to skin-to-skin contact and bond maintenance, without distinguishing the real purpose of the method that would be the change of paradigms of premature care[18].

This misunderstanding, related to public policy for assistance to premature infants, also corroborates what was identified in a study conducted in the state of Pará, which pointed out in its findings as results of this lack of knowledge, the appreciation of hospital care, fragmented

premature care and divergences between policy and professional practices[19].

About the consultation itself of the PTNB, anamnesis is fundamental for the follow-up of the PTNB, since it allows the nurse to identify problems, establish diagnoses, plan and implement his/her assistance.

During the follow-up of the growth of children with low weight or preterm, tables/graphs should be used or tables of weight and height should be used to correct the chronological age up to 2 years of age[12]. However, its use is mentioned only by a professional, revealing that many nurses can identify abnormalities in the development of preterm infants inappropriately, which generates a negative influence on evaluations and recommendations for care[16].

In relation to the periodicity of consultations, the MH points out that the ideal is to perform three consultations in the first week, two in the second week and one weekly consultation from the third week until the baby reaches 2,500g[17].

To assess the progress of the baby's development, complementary actions can be performed such as neuromotor examination, inspection and observation of the baby's behavior, regulation of sensory stimuli, and auditory and visual evaluation[13]. These statements reveal that some nurses perceive the particularities of the PTNB, although in practice they have difficulty implementing specific assistance for them.

In the context of the monitoring of PTNB by Primary Care, the CHAs stand out as facilities, given the fundamental role they play and their proximity to the community in each territory. The MH assigns as functions of the CHA the identification of risk situations, orientation of families and community, and referral of cases and risk situations identified to other members of the health teams[20].

Regarding the difficulties, the embracement stands out as essential, because when performed properly, it contributes to the continuity of the follow-up of the PTNB, since parents become active subjects in the care of this baby. Thus, it is very important to offer a healthy and welcoming space for effective care.

In relation to the flow of the Health Care Network, it consists of a form of organization, whose objective is to ensure the right to preventive and curative services, through the expansion of access and organization of intersectoral health services, in a longitudinal and humanized way[21]. However, this study observed that, in practice, this network is weakened through a fragmented system, formed by health services that do not communicate with each other.

Another difficulty refers to the hospital discharge report of the PTNB, brought by the mother in the first consultation of GDM, contrary to what is recommended by the MH, which guides about the correct way to perform the reference and counter-reference. With this, the hospital should contact the Primary Care of the covered area of this baby; it should clearly and specifically fill out the discharge report, addressing all the information of the hospitalization period[2].

It was also evident the superficiality of communication between the hospital network and Primary Care. Studies indicate that the absence or fragility of communication between hospital and Primary Care makes the third stage impossible because, in order for the NB to have an effective follow-up, it is necessary to link between baby, hospital and Primary Care in order to establish an articulated network in order to ensure the continuity of care[18].

Moreover, it was observed the non-inclusion of PC, as well as the Extended Nucleus Team of Family Health (eNASF) that could help providing an effective multidisciplinary interconnection, since it was reported that these PTNB are assisted by physiotherapist, neurologist, speech therapist and nutritionist, and the entire process of marking and care performed by the hospital itself.

The training of professionals about the kangaroo method is fundamental, since it is essential to have the necessary knowledge to ensure the appropriate care, as well as the existence of qualified professionals and the union between the various spheres of health care for the execution of the kangaroo method. Therefore, it is evident the existence of the (dis)

continuity of the kangaroo method in Primary Care, and it is still perceived that professionals in this context experience insecurity and unpreparedness to assist PTNB.

Final Considerations

The findings responded to the objective of the study, which provided a notoriety for the discontinuity of the kangaroo method from the hospital context to Primary Care involving several factors, such as the superficial knowledge of nurses about the pre-treatment term and the kangaroo method, the fragility in the communication between the levels of attention and the absence of permanent education.

In view of this, there is a need for permanent education for nurses in Primary Care, in front of comprehensive care for premature infants, to strengthen the third stage of the kangaroo method.

The presence of CHAs in the prevention and promotion of health, as well as in strengthening the bond between the unit and the user is a facility pointed out by nurses. Thus, it is suggested greater appreciation of these professionals at social and financial level.

In addition, the predominant difficulty mentioned in this study is the absence of a formal referral from the hospital network to PC, which in turn interferes with the implementation of the reference and counter-reference between the levels of health care. Thus, this research suggests the systematization of the third stage of the KM, so that the PTNB is referred from hospital discharge to PC or specialized units.

Moreover, there is the need for professional training for nursing, from the academy, as in continuing education, in order to gather better information about the premature child, as well as the kangaroo method, in order to disseminate knowledge that favors this specific care.

The limitations of this study concerns the execution of the collection in a single city and with professionals from the same category, but, on the other hand, other studies converge with the same results when analyzing the continuity of the third stage in the PC. There is also the fact that government reference publications on the subject are outdated and, for this reason, with this research, new studies are expected to emerge in order to provide better quality of life to premature infants.

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2 – analysis and interpretation of data: Rebeca da Silva Araújo, Raquel Viera Farias, Rebeca Pinheiro de Santana Oliveira, Tayse Barbosa Moura, Dielly de Souza Leitão, Dayane Kelly Dos Santos De Cristo Macêdo and Aisiane Cedraz Morais;

3 – writing and/or critical review: Rebeca da Silva Araújo, Raquel Viera Farias, Rebeca Pinheiro de Santana Oliveira, Tayse Barbosa Moura, Dielly de Souza Leitão, Dayane Kelly Dos Santos De Cristo Macêdo and Aisiane Cedraz Morais;

4 – approval of the final version: Rebeca da Silva Araújo, Raquel Viera Farias, Rebeca Pinheiro de Santana Oliveira, Tayse Barbosa Moura, Dielly de Souza Leitão, Dayane Kelly Dos Santos De Cristo Macêdo and Aisiane Cedraz Morais;

Competing interests

There are no competing interests.

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