Esc Anna Nery 2022;26:e20210104

Child health care in primary care in a border region[a]

Cuidado em saúde à criança na atenção primária em região de fronteira

Atención de salud infantil en atención primaria en una región fronteriza

Taigra Morgana Picco[1]
Maria Aparecida Baggio[2]
Aline Renata Hirano[1]
Sebastião Caldeira[2]
Rosangela Aparecida Pimenta Ferrari[3]

1. Universidade Estadual do Oeste do Paraná. Foz do Iguaçu, PR, Brasil.

2. Universidade Estadual do Oeste do Paraná. Cascavel, PR, Brasil.

3. Universidade Estadual de Londrina. Londrina, PR, Brasil.

Abstract

Objective: to identify the health care provided to children from zero to 24 months of age in primary care in a border region. **Method**: a qualitative study conducted in Primary Health Care, with 14 mothers and five nurses, with the use of semi-structured interviews, from March 2018 to June 2019. Thematic content analysis guided the data analysis. **Results**: scarce home visits were identified in the follow-up of children whose common childhood problems condition access to health services for medical consultation, the use of popular practices or the indication of medications by pharmacists/pharmacy assistants; access to Emergency Care Units instead of Primary Care units due to the lack of pediatricians in this level of care, in addition to the lack of specialists and slowness to perform exams in the health network. **Conclusion**: the lack of health professionals, of specialists in the network, and of material resources are obstacles to be overcome for the care of children in the border region. The follow-up of Brazilian children living in Paraguay requires planning.

Keywords: Border health; Child health; Nursing; Nursing care; Primary health care.

Resumo

Objetivo: identificar o cuidado em saúde à criança de zero a 24 meses na atenção primária em uma região de fronteira. **Método:** estudo qualitativo realizado na Atenção Primária à Saúde, com 14 mães e cinco enfermeiras, com o uso de entrevistas semiestruturadas, de março de 2018 a junho de 2019. A análise temática de conteúdo orientou a análise dos dados. **Resultados:** identificaram-se visitas domiciliares escassas no seguimento da criança cujos problemas comuns da infância condicionam o acesso aos serviços de saúde para a consulta médica, o uso de práticas populares ou a indicação de medicações por farmacêuticos/atendentes de farmácia; o acesso às Unidades de Pronto Atendimento em detrimento das unidades de Atenção Primária por carência de pediatras neste nível de atenção, além de carência de especialistas e morosidade para a realização de exames na rede de saúde. **Conclusão:** a carência de profissionais de saúde, de especialistas na rede e de recursos materiais são obstáculos a serem superados para o cuidado da criança em região de fronteira. O seguimento da criança brasileira residente no Paraguai requer planejamento.

Palavras-chave: Atenção primária à saúde; Cuidados de Enfermagem; Enfermagem; Saúde da criança; Saúde na fronteira.

Resumen

Objetivo: identificar la atención de salud para niños de cero a 24 meses en atención primaria en una región fronteriza. **Método:** estudio cualitativo realizado en Atención Primaria de Salud, con 14 madres y cinco enfermeras, mediante entrevistas semiestructuradas, de marzo de 2018 a junio de 2019. El análisis de contenido temático guió el análisis de datos. **Resultados:** se identificaron escasas visitas domiciliarias en el seguimiento de los niños cuyos problemas comunes de la infancia afectan el acceso a los servicios de salud para la consulta médica, el uso de prácticas populares o la indicación de medicamentos por parte de los farmacéuticos / asistentes de farmacia; el acceso a las Unidades de Urgencias en detrimento de las Unidades de Atención Primaria por la falta de pediatras en este nivel de atención, además de la falta de especialistas y retrasos en la realización de pruebas en la red sanitaria. **Conclusión:** la falta de profesionales de la salud, especialistas en la red y de recursos materiales son obstáculos a superar para el cuidado del niño en la región fronteriza. El seguimiento de los niños brasileños que residen en Paraguay requiere planificación.

Palabras clave: Atención primaria de salud; Cuidado de Enfermería; Enfermería; Salud infantil; Salud fronteriza.

Corresponding author:
Aline Renata Hirano
E-mail: alinerenatahirano@gmail.com

Submitted on 04/16/2021.
Accepted on 08/15/2021.

DOI:https://doi.org/10.1590/2177-9465-EAN-2021-0104

INTRODUCTION

Child health is a priority field of action for the Brazilian Unified Health System (UHS), since infant mortality represents an international index on the health conditions and quality of life of the population[1].

The World Health Organization (WHO) recommends that the number of infant deaths in municipalities, states and countries be less than two digits per thousand Live Births (LB). In Brazil, in 2018, 12.35 deaths were accounted for every thousand LB. When taking into account the same index and evaluation period, the State of Paraná notified 10.3 deaths and Foz do Iguaçu, a municipality in the eastern region of the state, bordering Argentina and Paraguay, had the record of 10.8 cases[2,3]. As described, despite the significant reduction in infant mortality in the country in the last decades, it is still observed that the current numbers disclosed by the responsible agencies are below what is considered acceptable by the WHO.

Between the years 1990 and 2015, there was a drop of about 68% in the number of deaths in children under five years old. However, in 2015, 90% of the recorded cases were children under one year of age. Prematurity has remained the leading cause of death over the past two decades, with diarrhea, respiratory infections, and malnutrition remaining in the top nine[4].

The national data observed between the years 1990 and 2015 are quite optimistic, however, they demonstrate the fragility of the care required for preventable and sensitive causes of follow-up by Primary Health Care (PHC) in pregnant women and, especially, in children under two years of age[4].

The factors associated with the cause of diarrhea and respiratory problems in children under two years of age in Bangladesh, with the participation of more than 3500 children, were maternal depression and food and nutritional insecurity of families, pointing to the importance of programs and public policies that include actions focused on this issue[5].

According to the United Nations Children's Fund (UNICEF), diseases associated with malnutrition and diarrhea can be prevented with proper sanitation and adequate public health services in child care[1]. Thus, the dissemination of information about the prevention and minimization of disease complications is important for the reduction of injuries[6].

In 1993, WHO and UNICEF developed a strategy called Integrated Management of Prevalent Childhood Illnesses (IMCI), with the objective of reducing mortality associated with prevalent childhood illnesses in children under the age of five[6]. However, for this initiative to be effective, it is important that the health professionals are able to do this and that they receive support to attend the child population according to what is recommended by the WHO[7].

According to one of the guidelines of the National Policy of Integral Child Health Care (NPICHC), the actions directed to child health must be organized taking into consideration the Health Care Networks (HCN)[8]. These configure the current health care model within the UHS, whose goal is to offer, through health services, a comprehensive and continuous care that meets the principles and guidelines of this health system. Among the proposed actions are those focused on immunization, home visits, promotion of breastfeeding and healthy eating, continuity of care, among others, whose objective is beyond the survival and growth of the child, prioritizing the surveillance and promotion of children's health for their full biopsychosocial development[9].

Foz do Iguaçu, the context of this research, is located in the western region of the state of Paraná, on the border with Paraguay and Argentina. In Brazil, there are peculiarities in health care on the border when compared to other regions. Among them is the frequent displacement of the population residing in neighboring countries in search of health care at the expense of better conditions of access and care[10].

Residents of neighboring countries, particularly Paraguay, seek assistance in Brazilian territory, especially, for maternal and child care. Paraguayan or Brazilian women living in Paraguay access the Brazilian health service for the birth of their children. These children, of Brazilian nationality, are entitled to care through the UHS. In the period from 2006 to 2012, of the 34,456 births in Brazil, 95.7% are by women residing in Brazil and 4.3%, by women residing in Paraguay[11].

Given the above, the question is: how is the health care provided to children aged zero to 24 months in primary care in a border region? The objective of the study was to identify the health care provided to children aged zero to 24 months in primary care in a border region.

METHOD

Qualitative study, conducted in PHC, with 14 mothers of children aged zero to 24 months and five nurses, guided by the recommendations of the Consolidated Criteria for Reporting Qualitative Research (COREQ).

Inclusion criteria were: being the mother of a child aged zero to 24 months, user of the public health system, performing childcare in PHC; being a nurse working directly in childcare in PHC, performing childcare. Nurses and mothers from each of the five health districts of the municipality of Foz do Iguaçu, Paraná, Brazil, were included. Mothers who are not responsible for the child's comprehensive care and nurses who were away from work during the data collection period were excluded from the study.

Data collection was conducted in PHC, in Basic Health Units (BHUs), both of the traditional model (known as "open units") and the Family Health Strategy (FHS), one in each health district of the municipality studied, which is located in the western region of the State of Paraná, on the border of Brazil with Paraguay and Argentina and, according to the Brazilian Institute of Geography and Statistics (IBGE), has an estimated population, in 2017, of 263,915 inhabitants, formed by a diversity of ethnicities, with 82 distinct nationalities.

The participants were selected by convenience. Mothers were invited during the childcare consultations. Data collection was guided by a semi-structured script, validated by pilot-test and applied by a master's student, in the period from March 2018 to

June 2019, initiated by the guiding question: "Comment on child care in primary care after birth".

The interviews were conducted in the health units themselves, individually, lasting approximately 30 minutes, and recorded on an electronic audio device. With the mothers, they took place before or after the children's childcare appointments and, with the nurses, according to their availability, in the units where they worked. The transcripts of the interviews were returned to the participants for checking, but only two nurses returned, however, without changes.

The thematic content analysis guided the data analysis. In the first stage, pre-analysis, a floating and interpretive reading of the data was performed, followed by exhaustive reading for the definition of the thematic units, according to the study's objective. In the second stage, data exploration, the coding operation was performed by cutting the text into units of records or meanings. In this step, the classification and aggregation of information from the registration units were also performed, which led to the formation of thematic categories. In the third stage, the treatment of the results was carried out by means of inference and interpretation of the data from the thematic categories[12].

This is a cut of a multicenter research entitled: "*Rede Mãe Paranaense na perspectiva da usuária: o cuidado da mulher no pré-natal, parto, puerpério e da criança*" (Paranaense Mother Network from the user's perspective: women's care during prenatal, childbirth, puerperium and the child), which was approved by the Ethics Committee on Human Research of the State University of Londrina, with CAAE number 67574517.1.1001.523. To ensure anonymity, the participants were identified by letters that represent them, followed by the order of participation in the study. Example: "N" for nurse and "M" for mother. i.e. N1...N5, M1...M14.

RESULTS

Characterization of the participants

The mothers were between 18 and 44 years old, whose children ranged from one year and four months to two years old, mostly Brazilian (except for one Haitian and one Paraguayan), married or living in a stable union, having completed High School, exercising a profession or occupation, with an average family income between one and three minimum wages and living with more than three people in the household, one of them living in Paraguay.

Regarding health professionals, they were all composed of nurses, aged between 32 and 38 years, working for more than ten years in PHC, all with specialization, one with a master's degree.

Health care and popular practices for children

This category refers to health care for children with common childhood conditions and diseases identified in childcare consultations by the nurses and/or reported by the mothers during the PHC care, the professional's handling of them, as well as the childcare practices performed by the mothers and based on family beliefs. The main conditions or diseases reported are: allergies; rashes; respiratory diseases; oral and vaginal candidiasis; colic; dehydration; diarrhea and vomiting; flu-like illnesses; fevers; neonatal jaundice; gastrointestinal infections; urinary tract infection; conjunctivitis; skin mycosis; lice; verminosis etc.

For these conditions, the children received medical and/or pediatric consultation with the indication of treatment or guidance to parents according to each case. However, regarding the professional guidance received, it is noted the insecurity of mothers to perform basic care, such as nasal cleaning, necessary for the improvement of the child's clinical condition.

> *[...]this unit, has a lot of skin mycosis, usually the mother passes it to the baby [...], rashes, [...] because they use a lot of moistened handkerchief, for being practical. It is very common oral candidiasis, oral and vaginal moniliasis also [...] in the vulva part of the child [...]. I see more [...] dehydration, skin allergies, known as roughness [...] cases of fever, flu, lung diseases, newborns with jaundice [...], urinary infection [...], vomiting and diarrhea, especially when children start with different milk, formulas or carton milk. (N1)*

> *[...]dry cough [...] they only gave me a syrup [...] the doctor prescribed me [...] I do the inhalation at home [...]. The doctor, he said to do at home that nose wash on her [...]. I never did the wash on her, because I'm afraid to do that [...]. (M5)*

> *She had the flu, colic, stomachache [...] she stopped taking my milk [...] I had no money at home so I mixed the milk carton with water to give her [...] she had a stomachache [...]. (M8)*

After birth, the appearance of colic in the newborn is the most common complaint, which commonly conditions the mothers' access to the health unit. In addition to the use of medications prescribed by doctors to minimize colic, popular practices such as offering teas, massages with oils and plants, the application of heat, and others commonly recommended by family members and people close to them, are also used.

> *[...]She cried a lot with pain, and the nurse taught me to do exercises with her little legs, massage them, and this gave her some relief. As she had a lot of colic, the doctor gave me a little medicine. (M3)*

> *Then my mother does the thing with the rue and the oil, it can be with rue and warm oil, or with garlic and oil, she passes her hand on the ribs and keeps pulling on the belly, massaging it very lightly, in the beginning I used to put the bandage, but then I stopped putting it on and put only a cloth, a diaper. I iron the diaper, leave it very warm, then I just roll it up, I don't tighten it like the little bandage, I just roll it up like this, then she sleeps very well. (M6)*

[...]my grandmother, she always gave us chamomile tea [...] she indicated it and I gave it to him, but for colic I gave him Simeticone or Colikids [...]. (M12)

Health professionals do not guide the use of teas. However, according to the nurses' reports, this and other practices are part of the mothers' care for the relief of colic and the promotion of comfort to the children.

[...]does not recommend or guide the consumption of tea. But they end up giving it hidden, because of the colic that the child presented or because the neighbor, the sister or the mother said [...]. (N2)

[...]There are many mothers who give the tea, the medicine, and also do something for massage, like using hot oil with a bit of rue to rub on the child's belly. I try to find out, because, at some point, it may be the only resource the mother had at that moment to help her child. So, I don't like it, but I understand the different situations. There are mothers who give just because a friend gave and the child has nothing [...]. (N5)

Going to a pharmacy and asking the pharmacist, or even the pharmacy clerk, to prescribe medications for common childhood conditions (diseases or their signs and symptoms) is a common practice of mothers confirmed by nurses. Therefore, medications are administered to children without prior medical evaluation. However, when the child's condition worsens and requires treatment with antibiotics, mothers go to the PHC for a medical consultation.

[...]I go straight and buy it at the pharmacy. It's easier, like Dipirone, Paracetamol [...]. (M1)

I always buy my medicines at the pharmacy; I've never used the one at the health center. In fact, we self-medicate it. I always go to the same pharmacy. I already know the people [...] I trust them [...] I buy only with the same pharmacist [...]. (M12)

[...]If the child gets sick, it is very common for them [mothers] to go to the pharmacy on their own to get the medicines. They only go to the doctor to buy medicine for children when they need antibiotics, because the pharmacy doesn't sell them. They go to the clinic to get the prescription. (N4)

Reference in child health

According to the nurses, the children are referred to services of other levels of complexity when they cannot be resolved in the PHC, such as to the specialized care service, when they require investigation by a specialist, to the hospital care service, in the case of neonates, or to the Emergency Care Unit (ECU), in the conditions of urgency or child emergency.

In these conditions, transportation is done through the Mobile Emergency Care Service (MECS). The referral among the health network services is done by phone call and written referral by the Nursing or medical team, accompanied by a detailed description of the child's diagnosis, physical examination, and reason for referral.

[...]when the child is very dehydrated, due to a more severe case of diarrhea, that can no longer be hydrated orally, we refer it to the ECU, or in the case of yellow fever, as the mothers say, we refer it directly to Costa, which is the reference hospital until 28 days after the child's birth; I make a written reference, do a physical exam, evaluating that this child was jaundiced, how sclerotic it was, if it is urinating little, the color of the urine; in this case, I call the doctor to come to evaluate in my room and we send it to the hospital. (N1)

Regarding the referral of children to secondary or specialized care, the nurses refer, as main weaknesses, the insufficient number of specialists in the HCN and the delay to authorize and perform high-cost exams. They point out the need for more availability of specialist doctors, speech therapists, psychologists, and other professionals in the municipal network - in the Extended Family Health Center (EFHC).

[...]when this child needs a specialty, our municipality already has some difficulties [...] it is not a difficulty of the basic unit, it is a network difficulty [...]. The specialties are few professionals to attend, release of high-cost exams [...] we will continue trying to solve the problem here, but we do not have the resources [...]. (N2)

[...]There is a lack of other professionals in the area [...]. This is not a luxury. This is the basics. We need more professionals in the EFHC to meet the population's demand and relieve a little bit the teams of the units to work together. (N1)

It is important to emphasize that when children are referred to specialized services, the mothers keep their childcare appointments in PHC. Thus, the continuity of care for the child remains in the two levels of care.

[...]I go to the pediatric cardiologist because of his heart condition and I keep coming here to the health center to see Fulana [doctor] and also to accompany Ciclano [child] to his childcare [...]. (M1)

[...]this child is always accompanied here. She is more followed here because she is closer to her home [...]. We have the support of the health agent [...], there is the consultation scheduled with the pediatrician, but even so [...] we end up knowing more about her routine and the family than the specialists [...]. We know the mother, the

siblings, the house, the situation that the child is in, the condition she is living [...]. (N1)

Weaknesses of PHC: obstacles and strategies to overcome them

It was identified that home visits by health professionals, until the 5th day of life of the children, after hospital discharge, did not happen for all children in the coverage area of the health units. According to the nurses, the lack of a car for use by PHC professionals makes home visits difficult. They emphasize that they prefer mothers to access the unit for Nursing care.

[...]I didn't receive any visitors, nobody went there, I didn't even leave the house, I stayed there all the time because of the protection. Just like I said, I didn't receive any visitors. (M3)

[...]I didn't receive any visitors after she was born [...]. (M13)

[...]we have no way to make home visits to all mothers; I prefer that this mother comes to the clinic, so, I do it before the tenth day. Actually, I think that it is not feasible for me to schedule and perform this consultation at the patient's home [...] I depend on a car that is not here in the unit; the car is divided among six teams, so, like it or not, here, I have more tools to help [...]. (N1)

[...]I prefer that they come here [...] I went a few times to the houses, but I got there and the mothers didn't want us to enter their house [...]. (N2)

Home visits are carried out in the form of active search for mothers who have not attended the BHU, in the first week of the child's life, to start childcare. Often, it is the Community Health Agents (CHAs) who perform the active search, guided by nurses.

[...]I do home visits [...] didn't come to the unit, like on the seventh and eighth day, then we do an active search at home, but most of the patients I see at the clinic [...]. (N1)

Usually the CHAs actively search for these mothers in their homes [...]. (N5)

Barriers to the continuity of care for children born to Brazilian or Paraguayan mothers in Brazilian territory were identified, since the study was conducted in a border region. These children, for having Brazilian citizenship, have the right to access health care in the country. However, after birth, the mothers do not attend the PHC units in Brazil, for monitoring the child through childcare.

It is worth reporting that the Brazilian women/mothers seek prenatal care in Brazil, in a specific service for monitoring Brazilian women/children, with the linking of the birth of their children in Brazilian territory to guarantee them access to health care. Paraguayan women - who are not residents in Brazil - resort to the Brazilian health service for the birth of their children with the same guarantee. In addition, some get care through the use of addresses of friends or relatives residing in the country to obtain the Unified Health System (UHS) card. Therefore, the active search for children who are absent in childcare is impossible, since the child lives with the mother in Paraguay.

[...]CHAs can't follow up because they come specifically for consultation, they give the address of some relative, some friend. This woman lives in Paraguay [...]. But there is no way we can deny the service because she has the right. [...] So, they already have the UHS card. [...] most of them are not Paraguayan, they have Brazilian documents, but they live in Paraguay [...]. They are Brazilians and ended up marrying Paraguayans. [...] They have the full right [to access health care], in Brazil, and, in this case, they are the brasiguaias. [...] Paraguayans, when the child is born in Brazil, automatically, this child has full rights, that's what most of them are doing, coming to have their children here and then they have access to health [...]. You are not going to see if she really lives in Paraguay or not, because, wanting it or not, this is not our job. (N1)

Mothers revealed different situations experienced to the access to health care for their children. It is noted that PHC is not the first access for all mothers who need care for their children. When they seek access to this level of care, they do not always find a pediatrician to meet the required demand. The ECU, in turn, absorbs the demands of primary care due to the lack of a pediatrician at this level of care and proves to be a frequent choice for families to access health care in search of a solution. Therefore, the lack of PHC professionals generates overload in the ECUs.

[...]I prefer to go straight to the ECU, because then I arrive at the clinic and there is no doctor or the doctor will take a long time to attend, one, that they attend children faster. (M8)

[...]the ECU are always full, like it or not, when we can't solve it in the unit, it overloads the other health systems, like the ECU [...]. (N4)

In this sense, the lack of professionals in PHC is a weakness to ensure the continuity of care for children, being necessary to provide professionals in adequate numbers to meet the demand of the population served.

[...]Not enough people to work, not enough doctors, nurses, the girls at the vaccine station, always busy and crowded [...]. (M6)

[...]I think there are too few people working, the population only grows, there will always be more people for them to attend to, so they have to put more professionals, more people to work, otherwise they won't be able to. (M9)

It is understood that the lack of health professionals, materials and medicines in PHC, as well as the maintenance and the quality of existing materials, is a public health problem, indicating the need for health managers to provide these deficiencies for adequate and qualified care for children. Thus, in order to improve the continuity of care for children in the city of Foz do Iguaçu, it is necessary to strengthen the PHC, in structure and actions, with the commitment of managers and, consequently, of health professionals. Consequently, PHC will be better valued by the population.

> *[...]this lack of employees in the teams is a network problem, in the general context, many units are without professionals to monitor these children, both in the reception and childcare, it is a general problem, a policy problem, someone who really looks with an eye to basic care would have to come in, the solution is down here, it's past time to think that only a doctor and nurse are essential within the unit, the population sees the post office as something simple, and the hospital as something big, something complex [. ...] while we don't value the importance of an anthropometric ruler to perform the measurements, it won't be solved [...]. (N1)*

> *[...]I went to the pharmacy to buy medicine [...], the clinic lacks a lot of medicine. We don't have antibiotics, so, the doctor prescribes them and we go to the pharmacy to buy them. (M9)*

> *[...]there is a closed vaccine room for lack of professional or problem in the refrigerator maintenance problem, car for home visits, educational materials, we needed an anthropometric ruler and a Styrofoam ruler came, very weak, we ended up preferring to stay with an old Iron one. Another thing: is the low quality material ordered, the pharmacy that could also be here [...]. (N1)*

> *[...]I've already had one time that vaccine was missing, I had to send the mother to another unit [...] the refrigerator ended up spoiling and, unfortunately, some mothers had their vaccination schedule delayed [...]. (N3)*

The monthly scheduling and the fitting of childcare appointments, when the mother missed the scheduled time, are actions inherent to the professional practice of nurses, considered strategies by the nurses and valued by the mothers, which can ensure the child's continued care.

> *[...]the nurse already schedules everything for the next time; since everything is already scheduled, I think it is even easier this way, the childcare consultation for another time. (M2)*

> *[...]one day it was raining a lot, I couldn't come [...] it rained for two days straight, then when it stopped I came to the clinic and said it was raining a lot and I didn't come that day [...] the nurse asked me to wait a little because she was seeing a woman, then she was going to see me. She called me and went to see the baby. (M4)*

> *[...]in fact, we open the agenda, we fit specific cases together, I know that that mother comes every two months, then, she comes for a medical consultation, we do everything together: medical consultation and childcare [...] it takes longer, it takes longer, but it speeds up the process. (N3)*

The data in question revealed the difficulties and the weaknesses in the context of PHC, with evident impairment of continuity of care for children living in border regions, particularly children born in Brazil but living in neighboring countries. In addition, PHC is not consolidated as a gateway to the care for children due to the precariousness of the supply of professional services such as pediatricians and full-time nurses.

DISCUSSION

In Brazil, the most common childhood diseases between zero and five years of age (malnutrition, anemia, and respiratory infections) have ailments that, although they can be controlled at the primary level of health care, still remain among the ten most common causes of infant mortality, with 90% of deaths affecting children in 2015 being among children under one year of age. These and other diseases were confirmed in this study, however, in the age group up to two years - the age of the children whose mothers participated in the research[4].

As for colic episodes in newborns, in addition to the use of medicines and pharmacological methods, parents reported performing actions to relieve the signs of pain, such as massages with herbs and hot oils and offering medicinal teas. However, health practices considered complementary or alternative do not always present scientific evidence or, sometimes, are objects of studies considered of low quality due to the presence of biases that end up reducing the indication of their use by health professionals[13].

A study conducted in Romania revealed that 70% of the parents participating in the research self-medicated their children, 60% of them were interested in homeopathy and/or herbal medicines, generally used from their experience, and 37% of them sought information from the pharmacist, a practice observed in this research[14].

Given this reality, especially in a border region like the one in this research, where, as mentioned earlier, about 82 different nationalities live together, it is essential that health professionals, local public policies, and the way the health system is organized consider the cultural practices present in this context. For this, the skills and attitudes in the care of the user should be strengthened, based on cultural competence in which appreciation and acceptance of the experiences and customs of the person assisted should be valued, recognizing the possibilities of inclusion of this mode of care in the health-disease process, building, with the user, the best form of health care, considering the biological, social and cultural issues, thus favoring the comprehensive care, since the

symmetry between the user-professional dialogue is important for therapeutic success[15,16].

In the scenario outlined, families that, in theory, should be cared for in the PHC, find more immediate answers in the ECU. This condition is due to the lack of professionals in PHC to care for children, considered an aggravating factor to access that generates, as a consequence, overload to specialized care. This defines a network with fragile and overloaded pacts and flow, in which the ECUs occupy demands that would be better met in the PHC[17].

In addition, the barriers found in primary care services, in making referrals to specialties (due to lack of specialist professionals), make the service unresolved and unable to provide the desired continuity of care to the child in health services[18].

This situation is a reflection of a deficient Health Care Network, which demonstrates the need to establish a flow of care in which the communication channels and the referral and counter-referral tools among professionals from all levels of care occur in an integrated manner from the perspective of child-centered care[18].

In PHC, home visits are provided for by the Paranaense Mother Network (PMN) until the 5th day of life after hospital discharge, and the child should attend the health unit until the 10th day of life of the child, for the beginning of childcare, since this is a period of great vulnerability of the newborn[19]. However, the data shows that nurses do not usually make home visits to all mothers in the recommended period, according to the PMN, and the active search performed by the CHAs does not always happen effectively.

This difficulty is linked to the lack of means of transportation and lack of professionals in the health unit to meet the existing demands. These situations make it impossible for the IMCI strategy to be effectively carried out in PHC, since, besides the importance of training professionals in its use in childcare practice, there is a need for resources, such as those mentioned above, for its satisfactory implementation[20].

As for the active search, this becomes impossible when it comes to children from *Braziguaias* families (Brazilians living in Paraguay) or foreigners who use the address of relatives or friends to get care in the Brazilian public health system, when, in fact, they live in the neighboring country. In order to ensure access to UHS, one of the main arrangements for foreign families residing outside Brazil is the use of residential proof, often, by "borrowing" addresses acquired through the complicity of Brazilians or by renting houses in Brazil[21,22].

It is important to emphasize that it is through home visits that nurses and the entire PHC health team can get to know the context in which families live, build a bond with them, and guide them regarding the necessary care for the child's health[23].

In Brazil, the border region has peculiarities when compared to other regions in relation to health care. One of the reasons is related to the demand for care by foreigners living in neighboring countries, therefore, inappropriately, linked to the positive evaluation of these in relation to health care offered by UHS compared to the other border countries[10].

Foz do Iguaçu, a municipality belonging to the triple border, includes these characteristics, presenting particularities in the provision of continuity of maternal and child care. The central units that meet the demand of the floating population (Brazilians living in Paraguay), sometimes, have difficulty in providing continuity of child care, since many families seek care only in cases associated with some comorbidity of the child and do not follow up through childcare.

This difficulty in the continuity of care for Brazilian children living in Paraguay causes, in addition to the lack of assistance, that may not exist in the neighboring country, damage to the diagnosis of the situation in child health in Brazil, both in relation to the health care of children and the health conditions of these children[24].

In this case, the regional, geographical and social inequality existing in Brazil, in a unique way, in this study, developed in a border region, represents a weakness that configures a public health problem. Foreigners seek assistance in Brazilian territory, particularly for maternal and child care, which affects the supply and financing of services in the country. For example, Paraguayan or Brazilian women living in Paraguay access the Brazilian health service for the birth of their children. Therefore, these children, of Brazilian nationality, have the right to care by the Brazilian health system, alerting on the importance of governmental actions through public policies that consider such situation, characteristic of this region[25].

This can be confirmed in the study, previously presented, which shows that 4.3% of births in Brazil, between the years 2006 and 2012, were to women who declared they lived in Paraguay. However, after birth, Brazilian or Paraguayan mothers do not always perform effective and frequent childcare[11]. It is worth noting that this situation is aggravated by the fact that there are no international agreements that allow for the continuity of child care by Brazilian health professionals in the border zone, between the different countries.

Despite the weaknesses identified, the study presents strategies adopted by nurses to promote the continuity of child care in PHC, among them: health education; maternal encouragement; scheduling, fitting and rescheduling, when necessary, of monthly childcare appointments. Regarding childcare consultations, welcoming and meeting the mothers' needs results in satisfaction, despite the obstacles inherent to PHC[26], a condition confirmed in this study.

CONCLUSION

The common childhood diseases present in the literature were also observed in this study, as well as the practice of medicalization of children by their parents, without medical guidance, and the use of alternative and complementary treatments, such as medicinal teas.

Child care in the context of the study takes place mostly in PHC; however, due to the lack of professionals, especially the pediatrician, and the delay of care, children are also seen in ECUs. However, the child in PHC, when reported to the specialized

service, remains accompanied in PHC, a favorable aspect for ensuring continuity of care for the child.

Weaknesses in PHC actions and services are related to the lack of health professionals and resources that hinder fundamental practices in child care, such as home visits. The supply of specialists is required to meet the demand referred by PHC. Furthermore, the continuity of care for Brazilian children residing in Paraguay is jeopardized due to the absence of child examinations and the impossibility of active search in the neighboring country. Thus, the follow-up of Brazilian children residing in Paraguay requires planning.

The study design was limited to interviewing mothers and PHC nurses. To expand the research on the subject, a study with the participation of other health professionals is recommended.

FINANCIAL SUPPORT

Universal Public Notice/CNPq nº 01/2016, process nº. 407508/2016-3, granted to the research with the title: *Rede Mãe Paranaense na perspectiva da usuária: o cuidado da mulher no pré-natal, parto, puerpério e da criança*, coordinated by Rosangela Aparecida Pimenta Ferrari.

AUTHOR'S CONTRIBUTIONS

Study design: Taigra Morgana Picco. Maria Aparecida Baggio.

Data collection or production: Taigra Morgana Picco.

Data Analysis: Taigra Morgana Picco. Maria Aparecida Baggio. Aline Renata Hirano. Sebastião Caldeira. Rosangela Aparecida Pimenta Ferrari.

Interpretation of results: Taigra Morgana Picco. Maria Aparecida Baggio. Aline Renata Hirano. Sebastião Caldeira. Rosangela Aparecida Pimenta Ferrari.

Writing and critical revision of the manuscript: Taigra Morgana Picco. Maria Aparecida Baggio. Aline Renata Hirano. Sebastião Caldeira. Rosangela Aparecida Pimenta Ferrari.

Approval of the final version of the article: Taigra Morgana Picco. Maria Aparecida Baggio. Aline Renata Hirano. Sebastião Caldeira. Rosangela Aparecida Pimenta Ferrari.

Responsibility for all aspects of the content and integrity of the published article: Taigra Morgana Picco. Maria Aparecida Baggio. Aline Renata Hirano. Sebastião Caldeira. Rosangela Aparecida Pimenta Ferrari.

ASSOCIATE EDITOR

Aline Cristiane Cavachilli Okido

SCIENTIFIC EDITOR

Ivone Evangelista Cabral

REFERENCES

1. The United Nations Children's Fund. Levels & Trends in Child Mortality [Internet]. UNICEF; 2019 [citado 2020 ago 15]. Disponível em: https://data.unicef.org/resources/levels-and-trends-in-child-mortality/
2. Instituto Brasileiro de Geografia e Estatística. Tábuas completas de mortalidade no Brasil [Internet]. 2019 [citado 2020 ago 15]. Disponível em: https://www.ibge.gov.br/estatisticas/sociais/populacao/9126-tabuas-completas-de-mortalidade.html?=&t=o-que-e.
3. Secretaria de Estado da Saúde do Paraná (PR). Superintendência de Vigilância em Saúde – SVS. Centro de Epidemiologia – CEPI. Divisão de Informações Epidemiológicas –DVIEP. Mortalidade infantil [Internet]. 2018 [citado 2018 nov 2] Disponível em: http://www.saude.pr.gov.br/arquivos/File/Mortalida_Materna_e_Infantil_18_07_2018.pdf
4. França EB, Lansky S, Rego MAS, Malta DC, França JS, Teixeira R et al. Leading causes of child mortality in Brazil, in 1990 and 2015: estimates from the Global Burden of Disease study. Rev Bras Epidemiol. 2017;20(20, suppl. 1):46-60. http://dx.doi.org/10.5123/S1679-49742019000100006. PMid:28658372.
5. Ullah MB, Mridha MK, Arnold CD, Matias SL, Khan AS, Siddiqui Z et al. Factors associated with diarrhea and acute respiratory infection in children under two years of age in rural Bangladesh. BMC Pediatr. 2019;19(386):386. http://dx.doi.org/10.1186/s12887-019-1738-6. PMid:31656181.
6. Ministério da Saúde (BR). Secretaria de Atenção à Saúde, Departamento de Ações Programáticas e Estratégicas. Manual AIDPI neonatal [Internet]. Brasília: Ministério da Saúde; 2014 [citado 2020 mar 27]. Disponível em: http://portalarquivos.saude.gov.br/images/pdf/2016/fevereiro/03/Manual-Aidpi-corrigido-.pdf
7. Abebe AM, Kassaw MW, Mengistu FA. Assessment of Factors Affecting the Implementation of Integrated Management of Neonatal and Childhood Illness for Treatment of under Five Children by Health Professional in Health Care Facilities in Yifat Cluster in North Shewa Zone, Amhara Region, Ethiopia. Int J Pediatr. 2019;2019:9474612. http://dx.doi.org/10.1155/2019/9474612. PMid:31949443.
8. Portaria nº 1.130, de 5 de agosto de 2015 (BR). Institui a Política Nacional de Saúde da Criança (PNAISC) no âmbito do Sistema Único de Saúde (SUS). Diário Oficial da União [periódico na internet], Brasília (DF) 2015 [citado 2018 jun 21]. Disponível em: http://bvsms.saude.gov.br/bvs/saudelegis/gm/2015/prt1130_05_08_2015.html
9. Conselho Nacional de Secretários de Saúde (BR). A Atenção Primária e as Redes de Atenção à Saúde [Internet]. Brasília, DF: CONASS; 2015 [citado 2018 abr 14]. Disponível em: http://www.conass.org.br/biblioteca/pdf/A-Atencao-Primaria-e-as-Redes-de-Atencao-a-Saude.pdf
10. Zaslavsky R, Goulart BN. Migração pendular e atenção à saúde na região de fronteira. Cien Saude Colet. 2017;22(12):3981-6. http://dx.doi.org/10.1590/1413-812320172212.03522016. PMid:29267715.
11. de Mello F, Victora CG, Gonçalves H. Saúde nas fronteiras: análise quantitativa e qualitativa da clientela do centro materno infantil de Foz do Iguaçu, Brasil. Cien Saude Colet. 2015;20(7):2135-45. http://dx.doi.org/10.1590/1413-81232015207.09462014. PMid:26132253.
12. Minayo MCS. O desafio do conhecimento. Pesquisa qualitativa em saúde. 14. ed. São Paulo: Hucitec; 2014. 406 p.
13. Perry R, Leach V, Penfold C, Davies P. An overview of systematic reviews of complementary and alternative therapies for infantile colic. Syst Rev. 2019;8(1):271. http://dx.doi.org/10.1186/s13643-019-1191-5. PMid:31711532.
14. Tarciuc P, Stanescu AMA, Diaconu CC, Paduraru L, Duduciuc A, Diaconescu S. Patterns and Factors Associated with Self-Medication among the Pediatric Population in Romania. Medicina (Kaunas). 2020;56(6):312. http://dx.doi.org/10.3390/medicina56060312. PMid:32630388.
15. Lima MRA, Nunes MLA, Kluppel BLP, Medeiros SM, Sa LD. Nurses' performance on indigenous and African-Brazilian healthcare practices. Rev Bras Enferm. 2016;69(5):788-94. http://dx.doi.org/10.1590/0034-7167.2016690504. PMid:27783725.
16. Hirano AR, Baggio MA, Ferrari RP. Amamentação, alimentação complementar e segurança alimentar em uma região de fronteira. CogitareEnferm. 2021;26:e72739. http://dx.doi.org/10.5380/ce.v26i0.72739.
17. Da Silva JG, Gomes GC, Costa AR, Juliano LF, Arruda CP, De Carvalho LN. A prática da automedicação em crianças por seus pais: atuação da enfermagem. Rev Enferm UFPE. 2018;12(6):1570-7. http://dx.doi.org/10.5205/1981-8963-v12i6a230779p1570-1577-2018.
18. Konder MT, O'Dwyer G. A integração das Unidades de Pronto Atendimento (UPA) com a rede assistencial no município do Rio de

Janeiro, Brasil. Interface (Botucatu). 2016;20(59):879-92. http://dx.doi.org/10.1590/1807-57622015.0519.

19. Vaz EMC, Collet N, Cursino EG, Forte FDS, Magalhães RKBP, Reichert APS. Care coordination in Health Care for the child/adolescent in chronic condition. Rev Bras Enferm. 2018;71(suppl. 6):2612-9. https://doi.org/10.1590/0034-7167-2017-0787.
20. Secretaria de Estado da Saúde do Paraná (PR). Superintendência de Atenção à Saúde. Linha Guia da Rede Mãe Paranaense. 7ª ed [Internet]. Curitiba; 2018 [citado 2020 dez 20]. Disponível em: http://www.saude.pr.gov.br/arquivos/File/LinhaGuiaMaeParanaense_2018.pdf
21. Seid SS, Sendo EG. A survey on Integrated Management of Neonatal and Childhood Illness implementation by nurses in four districts of West Arsi zone of Ethiopia. Pediatric Health Med Ther. 2018;9:1-7. http://dx.doi.org/10.2147/PHMT.S144098. PMid:29443325.
22. Aikes S, Rizzotto MLF. Integração regional em cidades gêmeas do Paraná, Brasil, no âmbito da saúde. Cad Saude Publica. 2018;34(8):e00182117. http://dx.doi.org/10.1590/0102-311x00182117. PMid:30133667.
23. Nascimento VA, Andrade SMO. As armas dos fracos: estratégias, táticas e repercussões identitárias na dinâmica do acesso à saúde na fronteira Brasil/Paraguai. Horiz Antropol. 2018;24(50):181-214. http://dx.doi.org/10.1590/s0104-71832018000100007.
24. Mello DF, Silva RMM, Pancieri L. Êxito técnico e sucesso em visita domiciliar para o cuidado da saúde da criança. Rev Pesquisa Qualitativa [Internet]. 2017;5(7):13-22 [citado 2020 dez 20]. Disponível em: https://editora.sepq.org.br/index.php/rpq/article/view/46/60
25. Mochizuke KC. Influência do atendimentoemsaúde à estrangeirosemumacidadefronteiriçabrasileira. J Health NPEPS. [Internet]. 2017;2(1) [citado 2020 dez 20]. Disponível em: https://periodicos.unemat.br/index.php/jhnpeps/article/view/1824/1674
26. Gomide MFS, Pinto IC, Bulgarelli AF, Santos ALP, Serrano Gallardo MP. A satisfação do usuário com a atenção primária à saúde: uma análise do acesso e acolhimento. Interface Comunicacao Saude Educ. 2017 set 21;22(65):387-98. http://dx.doi.org/10.1590/1807-57622016.0633.

[a]Article extracted from the Master's dissertation in Public Health in a Border Region - Continuity of child care in primary health care in a border region - by Taigra Morgana Picco, supervised by Dr. Maria Aparecida Baggio. Western Paraná State University. Year 2019.