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Challenges in the care of children born to mothers diagnosed with COVID-19 during the pandemic

Desafios no cuidado de crianças nascidas de mães com diagnóstico de COVID-19 durante a pandemia

Desafíos en la atención de niños nacidos de madres diagnosticadas con COVID-19 durante la pandemia

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ABSTRACT

Objective: To understand the challenges in the care of children born to mothers with COVID-19 during the pandemic.
Method: Qualitative research, conducted from November 2020 to May 2021, in two public maternity hospitals, with women who had children during the first wave of the pandemic, diagnosed with COVID-19 during pregnancy and/or childbirth. There were nineteen semi-structured interviews with thematic analysis. Symbolic Interactionism was used as a theoretical framework.
Results: Changes in the care for newborn children were identified. In the domestic environment, hygiene measures with the newborn children were intensified, social isolation restricted the support network and mothers felt alone and overwhelmed. In terms of health care, there was a setback in neonatal care and interruption of professional care, such as the suspension of appointments.
Conclusion: The pandemic has restructured traditional models of family care, intensified difficulties in accessing healthcare, and exposed children to inherent risks due to a lack of proper follow-up.
Descriptors: COVID-19. Child care. Mother-child relations. Child health.

RESUMO

Objetivo: Compreender os desafios no cuidado de crianças nascidas de mães com COVID-19 durante a pandemia.
Método: Pesquisa qualitativa, realizada de novembro de 2020 a maio de 2021, em duas maternidades públicas, com mulheres que tiveram filhos na primeira onda da pandemia, diagnosticadas com COVID-19, durante a gestação e/ou parto. Realizaram-se 19 entrevistas semiestruturadas com análise temática. Utilizou-se do Interacionismo Simbólico como referencial teórico.
Resultados: Identificaram-se mudanças nos cuidados a crianças recém-nascidas. No ambiente doméstico, as medidas de higiene com o recém-nascido foram redobradas, o isolamento social restringiu a rede de apoio e as mães se sentiram sozinhas e sobrecarregadas. No âmbito assistencial, houve retrocesso no cuidado neonatal e interrupção de cuidados profissionais, como suspensão de consultas.
Conclusão: A pandemia reestruturou os modelos tradicionais de cuidados familiares, intensificou as dificuldades de acesso à saúde e expôs as crianças a riscos inerentes à falta de acompanhamento.
Descritores: COVID-19. Cuidado da criança. Relações mãe-filho. Saúde da criança.

RESUMEN

Objetivo: Comprender los desafíos en el cuidado de niños nacidos de madres con COVID-19 durante una pandemia.
Método: Investigación cualitativa, realizada de noviembre de 2020 a mayo de 2021, en dos maternidades públicas, con mujeres que tuvieron hijos durante la primera ola de la pandemia, diagnosticadas con COVID-19 durante el embarazo y/o parto. Se realizaron diecinueve entrevistas semiestructuradas con análisis temático. Se utilizó como marco teórico el Interaccionismo Simbólico.
Resultados: Se identificaron cambios en el cuidado del recién nacido. En el ámbito doméstico, se redoblaron las medidas de higiene con el recién nacido, el aislamiento social restringió la red de apoyo y las madres se sintieron solas y abrumadas. En cuanto a la atención, hubo retroceso en la atención neonatal e interrupción de la atención profesional, como la suspensión de citas.
Conclusión: La pandemia ha reestructurado los modelos tradicionales de cuidado familiar, intensificado las dificultades de acceso a la salud y expuesto a los niños a los riesgos inherentes a la falta de seguimiento.
Descriptores: COVID-19. Cuidado del niño. Relaciones madre-hijo. Salud infantil.

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INTRODUCTION

The quality of care offered from birth is of paramount importance for the survival and healthy development of the child[1]. The first 1,000 days of life, the period from conception to two years of age, represent an important milestone in ensuring an individual's quality of life until adulthood[2].

With the COVID-19 pandemic, there were changes in the provision of care, as the need to stay at home changed personal and family dynamics, with social, psychological and financial influence[3]. Thus, parents were forced to reorganize household activities and outside work (predominantly women)[4]. Although children are not at greater risk for the severe form of COVID-19, the pandemic has had important repercussions for different Brazilian childhoods, with unintended consequences for the health and well-being of this population, especially those with greater social vulnerability and those with chronic diseases and/or special conditions[5].

Even before the pandemic and the closure of many health services, child care faced some difficulties, such as waiting lines, insufficient pediatricians or specialists, among others. This situation worsened, as the pandemic brought with it a lack of safe, reliable and accessible childcare options[4]. In addition to the social restrictions imposed by social isolation, to protect the child, there was a reorganization of health services, with the provisional suspension of consultations. In this pandemic scenario, stands out the importance of individuals' ability to access, understand and use information in a way that helps them maintain and promote health. This ability has been called health literacy, a way of empowering the population, which gives them autonomy and the ability to use health information effectively, involving a set of cognitive and social skills[6].

In childcare, mothers' health literacy is important to act more rationally and strategically, as changes and guidelines must be understood and developed by mothers and families to guide decision-making. Thus, maternal knowledge related to the forms of transmission of the virus and disease prevention measures can be decisive in coping with the situation[7]. Moreover, considering that care involves a set of articulated, reflective, negotiated, shared, meaningful actions, being a social product affected by the action-interaction of individuals, its understanding from symbolic interactionism becomes pertinent, since this approach focuses on the meanings involved in human actions and how they are sustained in social interactions[8]. This study aims to understand the challenges in the care of children born to mothers with COVID-19 during the pandemic, considering that there are still few studies that address these issues.

METHOD

Qualitative research that used symbolic interactionism as a theoretical framework. For Blumer, interactionism is based on the principle that human beings plan and direct their own actions in relation to others, giving them meaning and significance, the result of social interaction. Social life provides a process of interrelationships and interpretations of meanings shared by a group or community, which can relate, moderate, regroup and transform according to the situation experienced[9]. Based on this perspective, we sought to apprehend the senses and meanings attributed by mothers in the care for their children, in the context of a health emergency. It is about investigating the established interactions and the reflection in the experience of these women.

The study was conducted in two public maternity hospitals that are reference for the care of high-risk pregnant women and newborns (NB) with intensive care needs in a city in Northeast Brazil. These two maternity hospitals, one managed by the state and the other by the federal government, made available isolation areas for pregnant and postpartum women and newborns with suspected or confirmed disease.

Women who had children during the first wave of the pandemic, from March 2020 to November 2020, with a diagnosis of COVID-19 confirmed by the RT-PCR test, verified in the medical record, were included. Exclusion criteria included cognitive, auditory, and speech impairments, as these could hinder or render reporting, as well as women whose children died after birth.

The survey of the study population took place from September to November 2020, based on the admission records of women with COVID-19, informed by the two maternity hospitals, with 76 women being identified in Unit 1 and 61 in Unit 2. From this initial list, the medical records were accessed and sociodemographic characteristics [age, education level, marital status, number of children, income, place of residence (urban or rural)] and clinical characteristics [gestational age, parity and place of hospitalization (ward and /or Intensive Care Unit (ICU)), for each woman]. The participants were intentionally selected and sought to contemplate the diversity of situations, reflecting on the totality of the multiple dimensions of the situation under study[10]. Figure 1 shows the flowchart for participant selection.

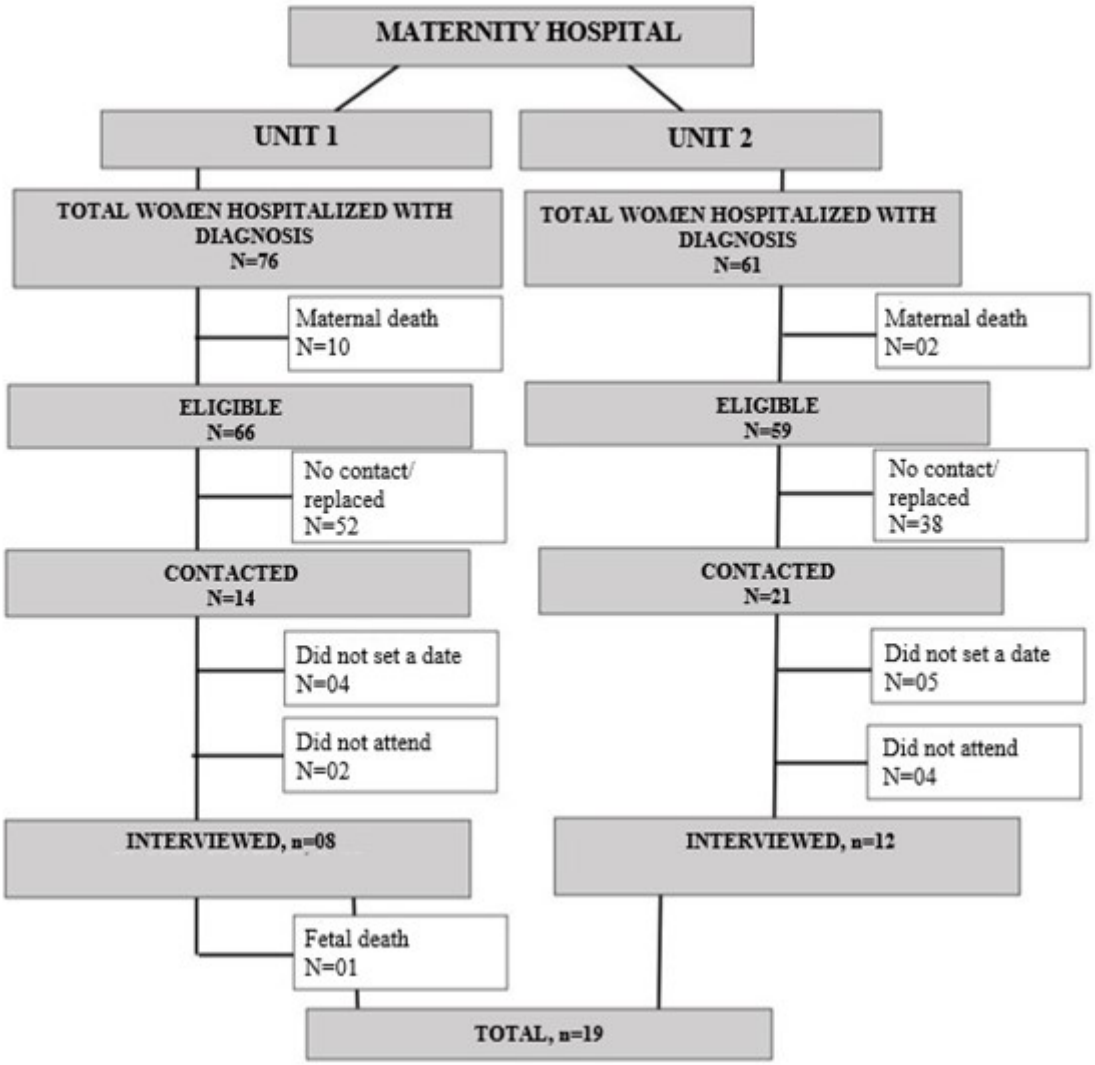

Figure 1 – Study sample flowchart. São Luís, Maranhão, Brazil, 2022
Source: The Authors, 2022.

The interviews were conducted from November 2020 to May 2021. To select the participants, it was used the technique of saturation of the senses, which signals the interruption of data collection when the interviews do not bring new information to the study object[10], which happened after the 15th interview, as the four interviews conducted after this confirmed saturation.

The initial approach for the interviews was by telephone, starting in October, when the research objectives were presented and the invitation to participate was made. After three unsuccessful contact attempts (the call was not answered), the woman was replaced by another with similar characteristics. There was no direct refusal after establishing initial contact. However, even after several attempts, there were, in some situations, difficulties in scheduling the interview and, in some cases, the women did not show at the scheduled date. These cases were understood as indirect refusal.

The date and the way in which the interviews were conducted, whether digitally, by telephone or in person, were defined according to the convenience of the participants. When in-person, they were conducted at home or at the hospital on the days of the child's follow-up consultation, following the necessary safety measures, such as distancing, use of a mask, hand sanitizer, among others. In each situation, the location sought to respect the principles of secrecy, autonomy and privacy.

For data collection, the semi-structured interview technique was used, based on two instruments: a questionnaire with sociodemographic and clinical data of the woman and the NB and a semi-structured interview script with the main questions that guided the interviews: experiences at the time of birth, during hospitalization, expectations, and support at the time of NB's discharge, home care and professional follow-up after discharge. The data were recorded, with authorization of the women, and were later transcribed. The interviews lasted, on average 40 minutes and were conducted by researchers experienced in qualitative research who had no previous relationship with the interviewees.

The content analysis technique was used in the thematic modality, adopting the following stages: pre-analysis, with fluctuating reading of the transcripts; categorization of material, data classification in search of thematic units; and identification of core meaning – text comprehension units[10]. The data were interpreted based on the Symbolic Interactionism, whose paradigm is people and their insertion and interaction with/in the social world, considering their main assumptions (mind, self, symbols, language, human action and social interaction)[9]. Thus, the aim was to encompass how the interviewees were reconstructing meanings for the experiences lived within family relationships and with professionals in the context of the health crisis caused by the pandemic.

The research was approved by the Research Ethics Committee of the University Hospital of the *Universidade Federal do Maranhão* – UFMA, based on Resolution 466/12, of the National Health Council, with CAAE no. 35645120,9,0000,5086. Participants' names were replaced by fictitious identification (flower names), to preserve anonymity. For the writing of the article the recommendations of the Consolidated Criteria for Reporting Qualitative Research – COREQ[11] were adopted.

RESULTS AND DISCUSSION

19 mothers who tested positive for COVID-19 were interviewed. The interviewees were between 17 and 40 years old, most were black or brown (15), living in the urban area (17), completed high school (09), were Christian (17), employed (12), lived with partner (12) and had a family income of up to one minimum wage (09). Eight were primiparous and 11 multiparous, regarding parity, there was variation in the number of living children (1 to 10).

Regarding clinical characteristics, 16 were hospitalized for treatment of the disease in the first trimester of pregnancy. From these, six remained hospitalized until the puerperium and 10 were discharged and later returned for delivery. Two were treated during pregnancy, were under observation and were not hospitalized. Only one woman was hospitalized with symptoms in the third trimester of pregnancy and remained until the puerperium. Sixteen women had their pregnancies ended by cesarean section and three had normal deliveries. From the eight patients who had comorbidities, three needed the ICU.

As for the NBs, five required admission to a neonatal ICU (NICU) and two of these tested positive for COVID-19. All newborns of mothers who were admitted to the ICU were born preterm (less than 37 weeks) and weighing between 2,080g and 2,780g. These children were, at the time of the interview, between one and eight months old.

The process of analyzing the information gave rise to two thematic units: Vicissitudes of child care during the pandemic; and Challenges and coping strategies in the search for healthcare within the health network.

Vicissitudes of child care during the pandemic

The care for children born during the COVID-19 pandemic was marked by difficulties caused or enhanced by guidance for protective measures and adjustments in the routines of the health network, many of which are recommended by the Ministry of Health and by research institutions dedicated to coping with the pandemic in Brazil.

Although the focus of this article is on care after hospital discharge, it is important to note that changes in care for children were perceived by mothers from the moment of birth, extending during hospitalization in rooming-in and/or NICU, and at home after discharge. The meanings attributed to such changes were constituted in social interactions with professionals and family members, in the professional and home environment, and were based on the fear of infection by the new coronavirus.

For mothers, the main changes that COVID-19 brought during childbirth were the absence of any interaction or immediate contact with the NB and the restriction of a companion.

> *I didn't even look, they didn't show me (daughter), because of the disease too… Then, when they took her out, I just heard them say: Everything is fine with her, thank God.* (Violeta)

> *They took the baby, then, they just came here near my head, I saw him, then they took him again.* (Tália)

> *Oh, no, I didn't have [companion]. My mother, who used to go with me, they wouldn't let her in. She stayed outside the maternity ward. 'Without visit'.* (Melissa)

It was possible to understand the reframing of care for the NB, which for these women, became centered on COVID-19 prevention, including the need to control the environment and risks. Social interactions at that time began to represent a threat to children and isolation became a central care strategy, making it difficult to use support networks, which are culturally part of the labor and birth process.

Thus, during the first wave of COVID-19, care for newborns in the delivery room was adjusted based on the maternal clinical condition. Care was different for mothers with or without signs of severity, especially good labor and birth practices, including skin-to-skin contact (SSC), which was not recommended. For the women in this study, regardless of the clinical situation presented, the SSC was not performed.

The current recommendation is that immediate SSC be authorized even for mothers with a positive diagnosis for COVID-19[12], as the short and long-term benefits for mothers and newborns outweigh the potential risks. It is important to highlight the understanding of these benefits by healthcare professionals, especially nursing professionals, a strategically important category in encouraging this practice.

There is an association between the presence of a companion during hospitalization for childbirth and the performance of the SSC. The presence of a companion favors the humanization of obstetric and neonatal care, reduces unnecessary interventions and contributes to the implementation of good practices[13]. However, the absence of a companion was experienced by most women, hindering the interaction between her, the NB, and the other individuals involved in that scenario.

Mothers who were transferred to rooming-in reported difficulties in taking care of themselves and their children, due to the restriction of the companion and reduced help from health professionals.

> *At the hospital, it was hard, because I had just had a normal delivery. It was bad, I was exhausted, but I was the one who had to change the diaper, breastfeed. I couldn't sleep, because as I was alone with her, I was afraid she would cry, if I would sleep, I wouldn't listen. There was no one to call me, to wake her up, to wake me up and pick her up. So, it was three days after giving birth that I hardly slept at all. Because since I was alone with her, when I managed to sleep, she would wake up.* (Iris)

The COVID-19 pandemic brought changes in hospital routines, imposing restrictions and isolation in various areas of these women's lives. It is known that the presence of a companion contributes across various aspects of adaptation of the puerperal woman and the NB, from emotional to physical changes, and also assists in the care for both the woman and the NB, as well as in the identification of possible abnormalities[14].

During the pandemic, the symbols and meanings[15] attributed to these interactions were changed, negatively affecting the perception of support and embracement. The companion could often represent an additional risk of contamination, but the lack of close support left women vulnerable and with additional difficulties to deal with the challenges of the puerperium.

The women felt alone and overloaded at a moment of difficulty, when they needed embracement and attention from someone with whom they had an affinity[14]. From a perspective of symbolic interactionism, one can understand how the absence of these interactions affected women emotionally. In some situations, the professional's physical presence, even reduced due to hospital restrictions, helped to minimize these negative feelings, representing embracement, attention, and care. These professionals came to be seen as sources of support and safety, capable of providing emotional comfort to women in challenging times, expanding their care role, aspects that are often fragile in the hospital environment.

Mothers whose newborns went to the NICU right after birth reported changes on hospitalization practices and routines in the Neonatal Unit. They informed that it was not allowed for the mother and father to enter together to see the child. They needed to alternate their stay in the NICU. They also reported that other family members were not allowed to enter, such as grandparents and siblings who were previously part of the hospital routine.

> *So, my construction with her [NB], my bond was like this, the Kangaroo, when there was a break from a medicine, only one person could, so, also, they canceled grandparents' day, due to the pandemic… they have a project there for the grandparents to visit the babies in the neonatal ICU and then it was canceled due to the pandemic, only the father or mother could do it, no other person was authorized.* (Rosa)

The pandemic brought setbacks in neonatal care, affecting practices that facilitate bonds, such as visits from grandparents, siblings, other people in the support network, and even the parents themselves, practices that have been consolidated in recent years. Published documents suspended these visits, contrary to the recommendations of the World Health Organization (WHO), in which families had to move

away from the NICU, to comply with the requirements of isolation and the decrease in the circulation of people[16–18].

In the NICU, visits by any family members other than the parents was suspended, except without their presence. It is emphasized that the absence of grandparents and other family members negatively interferes in the construction of a bond between the binomial NB and the extended family and in the possibility of qualified listening with potential for direct intervention to these members[19].

Adjustments in the care for NB in the NICU delayed the constitution of the relationship with the extended family and imposed restrictions, even for the parents, during the period in which they attended the hospitalization environments. It is considered that these adaptations limited the mothers' interactions with their children and family members at that time, negatively influencing their skills for care at home. Exposure to social symbols that deal with the virus and its threat to life, increased concerns, produced fear and insecurity.

In this interactional symbolic field, the need for support to care for the NB and the feelings of distress facing the possibility of contamination, revealed situations of emotional and physical burden of these mothers. Despite this, the digital technology resource meant, for mothers, an important tool in the provision of health care, facilitating interaction with their children and with the world. In this scenario, stands out professionals' sensitivity, in an attempt to overcome the distance caused by new routines. One of the strategies used, for example, was photographic and video recording, which helped bring parents and relatives closer to the NB.

> *He [the NB's father] also went to the ICU every single day, but only entered one at a time. Then, we asked for authorization, the first time I went to talk to the social worker in charge at the ICU, to let the two of them in to take a picture. But, that we were going to take it quickly and it was a thing, like, we didn't even take a picture on our cell phone, they took it, an employee took a photo on the cell phone protected with that plastic film and we gave her our number so she could use WhatsApp, precisely to not have this contact with our cell phone and it was like that.* (Rosa)

Faced with restrictions, professionals sought alternatives to keep the connection and provide support to parents and new forms of symbolic interaction[15] were adopted to meet the needs for approximation, even if they were not in-person. Thus, other strategies emerged during the care of children in health services, such as the use of cell phones, in which professionals sought to reduce the rigidity that the deprivation of contact imposed to cope with the pandemic. Many professionals offered their cell phones for photo and video recording of the newborns, to send to the parents while they still could not have this experience in their daily lives, seeking to respond to the demands of patients outside the space and temporality of work. Many ways were built to solidify the attachment, guaranteeing the care protocols[17].

Restrictive measures related to the family's access to the NICU, which caused changes in social interactions, on the other hand, enabled some control on exposure to the virus in this environment, as it offers a greater sense of safety to professionals and parents. However, it should be noted that these measures can arduously cross the achievements on practices that facilitate bonding and neurosensory protection of newborns, increasing the challenge of the multiprofessional team in providing care[17]. The presence of parents, guaranteed by ministerial decree and already well accepted, underwent a change of meanings[15] in this challenging context.

After discharge of the mother and child, changes in home care were also noticed. The moment of leaving the maternity ward with the children, from a family event, was transformed, due to fear of exposure, into isolation, resulting in restriction of visits from relatives and friends and lack of support in the care for the children.

> *They didn't accept many visitors either, no. I said: I don't want to visit now, because of his breathing, right? And also because of this covid that hasn't ended yet.* (Açucena)
>
> *So, yesterday, a relative that we didn't want to have contact with arrived, he arrived without a mask and, then, I looked like this... and I went and locked myself in the room with the baby.* (Rosa)
>
> *Because some people don't understand. There are people who want to pick up the baby, want to grab me and it's very sad to say no. No, don't pick up, don't do that. Some people lack manners.* (Flora)
>
> *Very difficult, because our friends want to see, they want to be close, and we can't... They couldn't.* (Amarilis)

Among the changes brought about by the pandemic, social isolation restricted interaction and family support provided to mothers, both because of the fear of contaminating the child and because of the support network itself, often made up of elderly women: mothers, grandmothers and even family members. great-grandparents, who are risk groups for COVID-19[20]. The physical absence of the family was a challenge. Having a family member nearby

helps both in the care given to the NB and in supporting the puerperal woman, offering strength that, consequently, reflects on self-esteem[21].

The symbolic understanding of home care during the pandemic allows us to analyze how meanings and social interactions[15] shaped the experience of mothers in the care for their children and highlight the importance of offering emotional and practical support in moments of isolation and restricted visits.

The effect of social isolation on depressive symptoms amidst the COVID-19 pandemic is also highlighted, and it is important to support these women to reduce feelings of sadness and loneliness to soften the consequences for mental health[19]. Active listening by nursing team professionals and other health professionals about the behaviors that will be adopted in the maternity ward can help in maternal emotional management. Whenever possible, psychological support is recommended, associated with emotional support from the companion. Additionally, attention to maternal mental health should be maintained after delivery.

Mothers stated that taking care of their newborn children during this period meant having less help, increased domestic activities and increased concern with hygiene measures at home, besides to the use of protective instruments, such as masks and hand sanitizer.

> *Anyone who got close to her, which was only my sisters, would use hand sanitizer. Even my mother used hand sanitizer. We wouldn't leave the house. And whoever left the house would come back, use hand sanitizer, and go straight to the backyard to shower in the bathroom. Everything. Every. A doubled hygiene routine was put in place.* (Hortência)
>
> *When she had to go out to take a bath, nobody was around here and the people inside the house wore a mask all the time, even my nephew. It was all the time. But no one entered the room. Nobody took her. Went to pick her up later and she was already a month old.* (Iris)

The desire of other family members to interact with the child was reported by the mothers as difficult to manage. These precautionary measures, which resulted in the separation of family members, were intended to prevent the disease transmission to the child, as the pandemic increased the fear that mothers had of their children being infected and becoming seriously ill, mainly due to the capacity limited use of hospital beds and ICU[22]. Thus, the pandemic scenario demanded changes in the way of life to reduce the risk of contagion and motivated mothers to adopt new routines and habits, characteristic of everyday life, which ended up reducing openness and willingness to interact and receive support. Fear of exposure to the virus changed the perception of safety and the role of family interactions, making visits and family support potential sources of risk.

The moment of breastfeeding was also redefined. The recommendation of healthcare professionals was to wear a mask during breastfeeding. In addition, mothers understood the importance of hygiene to avoid transmission of the virus, as described in the statements below.

> *Then, I started giving him milk with the mask on, but thank God, nothing happened.* (Lis)
>
> *When we go to breastfeed, we must be very close, I would have to keep the mask on.* (Carmélia)
>
> *I'm going to bathe soon, after I bathe, I breastfeed him.* (Angélica)

In the literature, most guidelines support the breastfeeding of NBs among mothers with suspected or confirmed COVID-19, maintaining precautionary measures such as the use of masks, hand washing before and after contact, cleaning/disinfecting all surfaces. Furthermore, if the separation of the mother and child is necessary, the mother should start expressing milk immediately to establish and maintain milk production[23].

The women maintained the understanding that breastfeeding is an essential care strategy from the mother to the child and affirmed the understanding that breast milk does not pose a risk of disease transmission.

> *Yes, I could breastfeed her, because it didn't any risk, the covid with breast milk.* (Carmélia)
>
> *Nothing happens to the baby. What actually happens, the doctors were explaining, is with the mother. The mother is the one who suffers. Thank God the baby was fine.* (Flora)

Through interactions with healthcare professionals, particularly nursing professionals for staying longer in the provision of care, these mothers were developing meanings for maintaining breastfeeding even during the pandemic. Especially in view of the absence of the family support network imposed by COVID-19, the guidance, support, and encouragement of breastfeeding from the first hours of the NB's life were essential.

At the beginning of the pandemic, in China, postpartum women were advised against breastfeeding, however, currently, evidence shows that there is no virus in breast milk,

thus, breastfeeding should be encouraged, mainly due to the benefits of child's immunization[24]. Thus, it is essential the support of health professionals and the support network, especially during the pandemic, when doubts and uncertainties regarding this practice arose. In this process, breastfeeding can be considered an important interactional factor between the mother and her child, providing the discovery of reciprocal feelings, and a sense of strong connection, interpreted and attributed by the mother.

Thus, the assumption of human action becomes evident, which is a result of self-interaction, built through the indications that a person makes to themselves and the interpretations of what those indications mean for action[9]. These mothers established that they should breastfeed after their observations and interpretations of the situation they were in.

Challenges and coping strategies in the search for healthcare within the health network

After the mothers returned home, the first barrier they faced was the difficulty in accessing follow-up appointments at the Basic Health Units (BHU). The interviewees reported difficulties in obtaining appointments. In some situations, there was a gap between appointments and, in one case, specifically, the child had the first consultation only at six months of age.

> *I took his documents, his SUS card, I went there and explained to the girl that he had not been to check-up yet. I had a six-month-old baby that I hadn't seen yet. I had a six-month-old baby who hadn't had a consultation. And I wanted an appointment for him because he was going to start eating soups and such. So, she went and arranged it for me. I managed to get it.* (Jasmim)

The lack of continuity in care caused families to feel insecure about child care, but it is necessary to emphasize that this situation was not exclusive to the pandemic, it was exacerbated by it. Factors related to the discontinuity of follow-up, such as organization and availability of services, socioeconomic conditions of the family, social support and the mothers' own perception of the need for outpatient follow-up were already reported[25].

With the pandemic, however, this situation worsened, as a reduction in the number of visits per day at the BHU was added to this, to avoid crowding; the closure of some units; the illness of professionals by COVID-19; and the removal of professionals because they are risk groups; in addition to the mothers' fear of going to the healthcare service and getting infected or infecting their children. These aspects made it difficult to establish interaction between healthcare professionals, mothers, and family members, in addition, they hindered the progression of cohesive care that met the health demands of NBs. Longitudinal care and the establishment of a bond between users and healthcare teams are some of the principles that should guide Primary Health Care (PHC) services[26] and that refer to symbolic interactionism.

When the mothers needed specialized care with pediatricians, the women also mentioned difficulties in scheduling appointments.

> *I couldn't get an appointment at all! Not even at the hospital. Because the first appointment, when there's a baby there, they do it right there. But, only the first one, which is there. After that, it is no longer with them. I couldn't even get that one! Because of the pandemic.* (Jasmim)

> *The difficulty I'm having is to get a pediatrician. It's hard at the health units. They're scheduling by phone, and when we call, there are no more available.* (Melissa)

One of the factors contributing to the reduction in services provided by these facilities was the absence of physicians, nurses and technicians who were infected with SARS-CoV-2 and needed to isolate themselves for recovery and decline in the transmission cycle. Additionally, during this period, the number of consultations, the number of professionals and follow-up clinics were reduced, with the aim of reducing crowding[27].

The mothers reported that they had to look for the private service, as a strategy to overcome the difficulties in providing care for their children in the public service. They also reported that they felt safer in the private sector, because, according to them, there was less crowding, in addition to that, scheduling options were offered, along with the use of personal protective equipment (PPE), such as: shoe covers, caps, attire for professionals, among others. These measures alleviated the fear of contamination.

> *I'm doing her pediatric follow-up at a private clinic. It's by appointment, so while we're there, there's no one else but the receptionist. We arrive, they put the shoe cover, little cap. They ask that, if any flu symptoms, we change the date. We chose to pay. We opted, both out of fear and comfort.* (Rosa)

The fact that they sought the private service shows that there were difficulties on access to public health services. Studies also highlighted the inequality in access to public

and private health services, which remained latent during the COVID-19 pandemic. Other problems were highlighted, such as the delay in opening new beds in the Unified Health System (*Sistema Único de Saúde* – SUS), lack of information about the installed capacity in private hospitals, lack of communication between the public and private sectors to mitigate mortality and SUS patients resorting to the judiciary for a bed in the ICU, while consumers of health insurance pleaded for the suspension of contractual waiting periods[28].

Another important result was related to access to vaccines. The mothers stated that they had the right to vaccine guaranteed, including the reorganization of the vaccination sites, ensuring the children's safety.

> *The baby had a vaccine a couple of days ago, the penta. When I went to the health center, it was me and my father, they asked to enter only those who were going to hold the baby, not both, due to the covid. And nurses are in a school that is much larger than the health center, so as not to have crowding, due to the virus. So, they stand in the courtyard.* (Rosa)

> *Regarding the first vaccines, he took them there at the hospital, which had everything there. Only the other vaccines that I took him at the health center, everything was right.* (Angélica)

Regardless of bonds with private health plans and private consultations, vaccines are the reference of SUS for mothers. The work was redefined by the primary care teams. Adjustments were made to the appointments regarding the physical space to ensure measures of distance and air circulation in the service environments, as well as the scheduling constituted the most used strategy to prevent patients from crowding at the reception of the units[29].

Despite the positive statements of the women interviewed in this study, who reported understanding the importance of vaccination and had a positive outcome in vaccinating their children, during this period, there was a decrease in vaccination coverage in Brazil[30]. This is a multifactor issue that needs to be addressed.

Many mothers did not take their children to health units to be vaccinated, fearing exposure to COVID-19. Faced with the scarcity of opportunities to talk about this issue with professionals, many women were attentive to the information conveyed in different social interactions, that included excess and mismatch of information, as well as fake news. According to symbolic interactionism, people construct meanings and attribute symbols based on social interactions and the information they receive[15]. Before the pandemic, vaccines were considered symbols of disease prevention and safety for children. However, with the spread of COVID-19 and the fear associated with exposure to the virus, some mothers have become afraid to take their children out of home, worried about the risk of infection.

Moreover, vaccines started to be questioned again about their need and safety and many people joined a movement known as anti-vaccine. This movement, which was strengthened during the pandemic and continues to have repercussions, even after the decrease in COVID-19 transmission[31], can be seen as a way of constructing meaning and alternative symbols[15] in relation to vaccines. People who join this movement base their decisions on beliefs, perceptions and information they obtain in their social interactions. It may be that the lack of opportunity to talk directly with health professionals led these women to seek information on social media and informal conversations. The lack of clarity and excess of contradictory information may have undermined the safety symbol associated with vaccines.

Like vaccines, neonatal screening tests are mentioned by most mothers in the study as being successfully performed at the BHU. At first, mothers reported some difficulty in doing these tests in the maternity hospital where the NB was born, due to the absence of professionals, however, they were able to perform them without problems at the BHU or referred by it.

> *She didn't take the test (ear) at the maternity hospital as soon as she was born because the doctor was on sick leave. Then, after a month, I think, I called the maternity hospital and they gave me another contact, I got in touch with the doctor and got her test done.* (Camélia)

> *I managed to get the vaccines and tests done. The ear test, heel prick test and tongue test.* (Iris)

> *Since he was born at one month old, we went to the health center to do the heel prick test.* [...] *then, we went to Carmosina [a BHU reference maternity hospital] to do the ear and eye tests.* (Lis)

Neonatal screening tests are components of public policies in many countries and refer to the identification of diseases or disorders from birth to the 28th day of life, promote early diagnosis of illness conditions and developmental changes, and allow early treatment or management. Through screening, it is expected to provide a better prognosis for NB diagnosed with a health problem, avoid or mitigate future disorders and reduce the burden of morbidity and mortality[32].

Mothers whose children were admitted to the NICU reported that these children were referred for periodic specialized outpatient follow-up after discharge; and that this follow-up was guaranteed with consultations, mostly performed through telemedicine. They reported that they received guidance on the close observation of their children's health and on dealing with any needs. In these cases, the consultation could be in-person.

> *Her service (doctor) is very good, and she also provides follow-up through WhatsApp as well... So, when I was hospitalized, it happened that I was hospitalized in two of her appointments, and I attended them through video call. Her own doctor says: 'If you have any doubts, give me a call, to avoid coming to the hospital, because of the pandemic'. the pandemic has affected things in this way.* (Rosa)

This transformation of the health care model boosted the interaction between mothers and healthcare professionals, especially doctors, through access to a private phone number. Several forms of communication emerged during this period, evidencing another assumption of symbolic interactionism, language, which is consisted of instruments used by individuals to organize experience. Society is literally divided by meanings that are used through language[15].

Certainly, communication technologies meant, for these mothers, a new form of social interaction and became key parts of health care strategies during the pandemic, especially in PHC, however, particularities of mothers and children in hospitalization conditions also benefited from this proposal. Women who went through hospitalization (due to COVID-19 or other illnesses) and needed to distance from their children, were able to accompany the follow-up appointments, through video call consultations. The availability of professionals to make contact mediated using cell phones was recognized as a satisfactory modality of assistance. Thus, telehealth emerged as a care option at all levels of care, including PHC, to be made available especially in times of health crisis, and it can be a path, if improved, as it allows access to qualified information in a timely manner.

Other tools for PHC care during the pandemic mentioned in this study were the use of messaging and cellphone applications for remote care, in-person care for children at risk, spaced consultations and changes in locations and environments at health units. However, it is essential to exercise caution to ensure that this new organization of work does not lead to a significant loss of the professional-patient relationship. Thus, to cope with the pandemic and reorganize the health care network, adaptations were needed in the routine of healthcare professionals and services, incorporating strategies for the service to work, including new forms of distance care, using information and communication technologies[33].

Only two mothers reported having received a home visit, and one of them highlighted that the visit occurred three months after childbirth. It is important to emphasize that, since the beginning of the pandemic, the WHO and the Ministry of Health have issued technical notes and other publications highlighting the importance of home visits to avoid the displacement of puerperal women and children, especially during lockdown phases[18].

Home visits for women and children in the first week after childbirth is a recommended activity in PHC, which should have been strengthened during the pandemic. However, it deserves attention that the 17 women who were not visited did not express this expectation. A study conducted with users at a BHU showed that they were unaware of their rights as users of health services, which may explain that the women in this study did not report this absence[34].

This study brought contributions to nursing practice, as it highlighted the need for these professionals to appropriate alternative technologies to assist mothers in the care for their children, especially in emergency situations. Faced with the difficulty of accessing comprehensive, continuous, and qualified care, it is necessary to promptly acknowledge the issue and devise strategies to minimize it. Therefore, active search, home care, use of technologies that allow risk reduction and maintain interaction between the community and healthcare services can be strategic tools for the health of this population.

A limitation of this study is the difficulty in contacting women, a consequence of the period of social isolation imposed by the pandemic. We sought to overcome this limitation by conducting some interviews digitally. Furthermore, the election of participants from records of SUS establishments reduces the ability to generalize the findings. However, focusing on this specific segment of the population enables us to analyze a significant portion of women facing greater social vulnerability.

CONCLUSION

The COVID-19 pandemic influenced women's actions in the care for their children. After understanding their maternal role (self) at that moment and through the interpretation of symbols, they assigned meanings and used language to order the experience. As it restricted social interactions between women, professionals, and family members, it restructured traditional models of family care and exposed weaknesses in healthcare services.

The woman, as a mother, developed the care of her child under two concerns: preserving the child's development and protecting her from contamination by the new coronavirus. The pandemic scenario symbolized the insertion of this woman in a context of uncertain safety regarding infection, with an overload of household work and discouragement to use the social support network. As a result, the woman experienced the care for her child immersed in feelings of concern, fear and loneliness.

These changes, in the context of the first wave, influenced the experience of women, bringing challenges and difficulties in the care for their children. These difficulties arose from the moment of birth and lasted during the hospitalization, even after returning home. In the maternity hospital, these mothers experienced the absence of a companion and immediate contact with the NB and restrictions in the NICU. After discharge, there were barriers in accessing the axes of healthcare services, restrictions on visits from relatives and friends, overload with household activities. Despite this, they used coping strategies and reorganized themselves, mainly using digital technology.

Considering that the first wave of COVID-19 was the most critical moment of the pandemic, knowing the challenges and coping strategies used by these women brings to light issues that are often not recognized. Some lessons learned were that mothers did not need to be separated from their child at birth, that the presence of a companion is essential, that vaccination and neonatal screening tests must be maintained and that basic health units need to adapt to keep the follow-up appointments for the child, even using digital technology.

These lessons can be applicable for other similar public health crisis situations, because, knowing the difficulties faced, healthcare managers will be able to invest in interventions to prevent such failures that occurred in the COVID-19 pandemic and, thus, equip nursing professionals and other healthcare professionals to deal with similar adverse situations.

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