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ORIGINAL ARTICLE

BEING PREGNANT, GIVING BIRTH, AND BEING A MOTHER IN THE COVID-19 PANDEMIC: Women's Voices

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Highlights:
(1) Covid-19 has significantly affected women during pregnancy, labor and birth.
(2) The pandemic has impacted access to and quality of maternal and child care.
(3) Nurses in Primary Health Care were essential for prenatal care in the pandemic.

ABSTRACT
This study aims at understanding the experience of pregnancy, delivery and motherhood during the Covid-19 pandemic in Ceara, Brazil. Qualitative exploratory research was carried out in Fortaleza, Ceara, from January to March 2022, with a sample of 30 women who were participants in a larger cohort study. The semistructured interviews was analyzed through the Thematic Oral History technique and Bardin's thematic content analysis method. The participants had an average age of 29.7 years. Most had one to two children, a monthly income equal to or less than one minimum wage, stable relationship and had not been affected by Sars-CoV-2. The analysis favored the emergence of three categories: challenges, feelings and experiences lived by participants about being pregnant, giving birth and being a mother in the Covid-19 pandemic. The findings suggest that the social isolation resulting from the Covid-19 pandemic, its socioeconomic impacts and the organization of health services resulted in negative experiences these experiences favoring the emergence of fear, anxiety, insecurity and stress. Thus, this article makes it possible to subsidize healthcare services to observe more humanized models for women in contexts of health crisis.

Keywords*:* public health; maternal health; pandemics; Covid-19.

GESTAR, PARIR E SER MÃE NA PANDEMIA DE COVID-19: A VOZ DAS MULHERES

RESUMO
Este estudo tem como objetivo compreender a experiência da gravidez, parto e maternidade durante a pandemia de Covid-19 no Ceará, Brasil. Foi realizada uma pesquisa qualitativa exploratória em Fortaleza, Ceará, de janeiro a março de 2022, com uma amostra de 30 mulheres que eram participantes de um estudo de coorte maior. As entrevistas semiestruturadas foram analisadas por meio da técnica de História Oral Temática e do método de análise de conteúdo temático de Bardin. As participantes tinham idade média de 29,7 anos. A maioria tinha de um a dois filhos, renda mensal igual ou inferior a um salário mínimo, relacionamento estável e não tinha sido afetada pelo Sars-COV-2. A análise favoreceu a emergência de três categorias: desafios, sentimentos e experiências vividas pelas participantes em relação à gravidez, ao parto e à maternidade na pandemia de Covid-19. Os resultados sugerem que o isolamento social decorrente da pandemia de Covid-19, seus impactos socioeconômicos e a organização dos serviços de saúde resultaram em experiências negativas, favorecendo o surgimento de medo, ansiedade, insegurança e estresse. Assim, este artigo possibilita subsidiar os serviços de saúde para observar modelos mais humanizados para mulheres em contextos de crise sanitária.

Palavras-chave: saúde pública; saúde materna; pandemias; Covid-19.

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INTRODUCTION

The Covid-19 pandemic, which began in 2020, caused worldwide losses of various orders[1], including negative impacts on maternal and perinatal health[2]. Pregnancy is a biological process that requires a fair amount of adaptation from the woman and her family to the subsequent physiological, psychological, and social changes[3]. These, added to the epidemiological context of the Covid-19 pandemic, caused losses of various dimensions to this group of women.

A study conducted with a sample of pregnant women in Fortaleza, Northeast, Brazil, during the implementation of physical distancing policies designed to mitigate the spread of Covid-19 pointed out that 45.7% of participants reported experiencing symptoms associated with common mental disorders[3]. A similar study conducted in Poland highlights pregnant women's reports of having experienced increased stress and fear related to childbirth during the pandemic, which was commonly perceived as a threat to their wellbeing and health[4].

Worldwide, there is already evidence about the prevalence of emotional and psychological disorders in pregnant women during the pandemic, such as the increase in disorders such as postpartum depression and post-traumatic stress disorder[5], observed due to the various factors caused by the period. Among them, some can be highlighted, such as concerns about the pregnancy, fetuses in development and the possibility of both maternal and fetal infection and the permission of the presence of companions and family during the period of childbirth and the immediate postpartum period[6].

Commonly voiced negative experiences have been reported in the current body of literature, such as concerns about the pregnancy, accessibility of obstetric consultations, the possibility of maternal and fetal infection, as well as whether the presence of partners and family will be allowed during labor and immediate postpartum[6], which constitutes integral rights of access to humanized health care[7].

Evidence suggests that employment and financial insecurity, commonly reported during the pandemic, directly impacted family dynamics and composition[8]. Such insecurity has been reported as having major consequences on women's perception and experience of unplanned pregnancies[9], ultimately compromising their health seeking behavior[5].

As a response to such challenges, several adjustments in the protocols regarding maternal health care were implemented[10], remodeling scope and effectiveness of prenatal care monitoring policies, as well as reorganization of health services specialized in obstetric, perinatal and puerperal care, such as maternity, neonatal ICUs and human milk banks[11]. It is worth mentioning that these changes were implemented at the various levels of health care, professionals and health managers, interfering with maternal experiences regarding the quality of health care received during the Covid-19 pandemic[12].

Certainly, the field presents advancements in current knowledge concerning the pathophysiological effects of Covid-19 in pregnancy[13], its repercussions on maternal and perinatal health[14], and strategies for safe and effective health care[15]. However, there remains a need for studies that seek to explore the perceptions of gestating women during the pandemic, since the entire process of pregnancy and puerperium, in its social, affective, care, and community spheres, were affected.

The present study is embedded in a cohort named Iracema-Covid conducted in the Northeast of Brazil, on women who were pregnant during between July and August of 2020, having had children during said period. The cohort research project aims at understanding maternal-child relations and child development of children born around the time of the pandemic and the followed social distancing protocols.

This study, as a by-product of the findings of its cohort, aims at further understanding, from an interpretative approach, the subjective experience of delivery and motherhood undergone by cohort subjects who were under the care of *Rede Cegonha*.

MATERIALS AND METHODS

Study Design and Population

An exploratory descriptive qualitative study was carried out in Fortaleza from January to March 2022 with mothers participating in the cohort research Iracema-Covid, employing Thematic Oral History data collection technique[16]. This study was approved by the Research Ethics Committee of the Federal University localized in the Northeast of Brazil.

Identification and selection of participants were made through the database of registered participants in the cohort research. Eligible candidates were randomly selected from the cohort database, considering women addresses of the six Administrative Health Regions in Fortaleza. The Administrative Health Regions are territorial divisions convering several border neighborhoods in the city of Fortaleza that share economic and social realities. Linked to the Municipal Health Department, their purpose is to integrate the organization, planning, and execution of health actions and services defined by the executive branch.

The eligibility criteria to participate in this research were: gave birth during the period of physical distancing, enacted by State Decree No. 33,519 of March 19, 2020 and extended throughout the rest of the year by equivalent decrees, and participated in the cohort research. The eligibility criteria for the cohort were: women living in Fortaleza, Ceara, aged 18 years or over, who gave birth between July and August of 2020, during the period of strict social isolation by Decree 33,519 of March 19, 2020 in hospitals public services in the capital of Ceara and who had their complete address information registered in the National System of Notifiable Diseases. SARS-Cov-2 infection was not a necessary condition for inclusion in the study.

After the identification of eligible candidates, initial contact was made by phone and WhatsApp to explain the study's objectives, clarify doubts and invite subjects to participate in the research. Upon their agreement, a time was scheduled for the interview. The final sample was composed of 30 participants, as then it was concluded that a saturation point of information had been achieved in the study population. Of these, eight mothers had Covid-19 before or during the interview.

The study was approved by the Research Ethics Committee of the Federal University of Ceara under report number 4.043.259. All participants provided verbal informed consent prior to enrollment in the study.

Data Collection

Two authors with previous experience in qualitative research were responsible for conducting the individual and semi-structured interviews guided by a written script, to ensure homogeneity. The interview script was developed from the available literature on the topics of prenatal care, childbirth, and postpartum in pre-pandemic periods, based on the logic of multidisciplinary health care, such as the effects of the pandemic on hospital and home routines[17]. The interviews were conducted by telephone to ensure the safety of participants and researchers in the pandemic context.

Following verbal informed consent from all participants, interviews were audio recorded and subsequently transcribed by a professional transcriptionist. The median length of interviews was 30 to 35 minutes.

Data Analysis

The analysis was done in the MAXQDA Analytics Pro 2022 software, using qualitative methods[18], based on Bardin's Thematic Content Analysis (1977). Initially, two authors independently carried out the analytical process in the software to identify the codes and analysis categories. After this stage,

the authors met to discuss the results found and resolve the discrepancies identified. Subsequently, meetings were held to discuss the findings and resolve discrepancies in the analysis.

Deductive thematic analysis was used, based on the structured questions and the available literature[17], as well as inductive analysis from the data itself. The thematic analysis process[18] was developed from its three stages: treatment of the material, exploration of the material and treatment of results, inference, and interpretation.

This process allowed for the codification of units of records concerning the experiences and feelings of participants about pregnancy, childbirth, and postpartum from these record units, eight analytical categories emerged. For this study, the categories that specifically addressed the experience of women in becoming pregnant, giving birth and being a mother during the pandemic were considered. These categories were submitted to the stage of processing the results, inference and interpretation according to the thematic content analysis technique. The interviews were identified by "ID" followed by the representative number of the interview order in the analysis bank (e.g., ID19), as a strategy to ensure the privacy of the participants. Units of record are exposed in this article with the intent of illustrating the present findings.

RESULTS

The study population was composed of 30 women living in Fortaleza, with a mean age of 29.7 years. Most had 2 children or less (n = 24; 80%), monthly income equal to or less than a Brazilian minimum wage (n = 20; 66.7%), which corresponds to 234.01 US dollars, in a stable relationship (n = 14; 46.6%), did not work outside the home (n = 24; 80%), and had not had Covid-19 until the time of the study (n = 22; 73.3%).

The analysis of the narratives favored the identification of three themes: (1) Feelings about pregnancy, (2) Challenges and feelings concerning prenatal care, and (3) Feelings and experiences concerning labor and birth. Among these categories, the third showed greater representativeness in the voice of women, as more content units were recorded for it than the other two.

Category 1 – Negative Feelings and Stress Regarding Childbearing during the Pandemic

The participants had different feelings about being pregnant and becoming pregnant during the period of physical distancing. For most women, pregnancy emerged as an unexpected situation, favoring negative feelings and stress due to a lack of information regarding Covid-19 and its effect on their own health and on their future offspring, as well as on their socioeconomic status changes, as exposed by the following quotes:

> ... I was super anxious because it was something new, you know? And nobody really knew what it was about, what it could cause in pregnant women. So, like, we were super anxious because everything in the reality of pregnant women is different... (ID6).

> ... it was a very big shock. I was very scared, I was afraid of my baby being born with some problem. Because for me, if I got him, he would be born with some sequel, I was so afraid... (ID7).

Subcategory – Relationship Stability and Pregnancy Acceptance during the Pandemic and Social Distancing

Furthermore, married women and women in stable relationships reported feelings of better acceptance of pregnancy, even when unplanned, compared to single women who presented discourses of fragility in family acceptance and insecurity in the face of socioeconomic pandemic related changes and losses. Such contrasting natures are exemplified by the following:

> [The pregnancy] was always planned and I found out about the pregnancy before the pandemic. So, everything was OK. But, after the pandemic, the issue of insecurity emerged. (ID19 – Marital status: married).
>
> Actually, I did not plan a pregnancy and so it was a surprise for me (laughs). And then when I found out, I didn't know what to do because it was not in my plans and I was already unemployed... (ID24 – Marital status: married).
>
> I was so shocked because I already had a girl to support... When I told my family, it was hard for them to accept it too. And, I think I got my mind so very disturbed because I had no peace, just thinking about these things how it was going to be, a lot of anxiety. (ID12 – Marital status: single).
>
> At first, I cried, I did not really want to accept the pregnancy and the doctors say that I entered into a denial, which is called not accepting pregnancy. But then I accepted it. (ID20 – Marital status: single).

Category 2 – Prenatal Care: Challenges and Contrasts in Quality of Care Throughout the Pandemic

Participants reported diverse experiences in prenatal follow up offered by primary care services in the Unified Health System (SUS), with differences in the quality of care between health territories. Reports included discontinuity of monitoring due to suspension of prenatal consultations, withdrawal of health professionals and lack of home visits by professionals from the multidisciplinary team and Community Health Agents, as told by the interviewees:

> I went to all the appointments at the health center, I didn't miss a single one. (ID6).
>
> ... then everything stopped, everything stopped. Here at least, everything stopped. We didn't even have a doctor if we wanted to go. There wasn't even a doctor... I was accompanied by the clinic until a certain period, then when things really started to stop I was left without a follow up... (ID15).
>
> The health team never came to my house, no . . . nor the Health Agent. Nobody ever came to my doo. (ID1).

Subcategory – The Importance of Nurses in Pandemic Prenatal Care

The role of nurses in prenatal follow up in primary health care services during the pandemic was prominent, with reports of various consultations carried out exclusively by them. Examples of such situations are told in the following fragments:

> As soon as the pandemic started, the doctor left and didn't come back, but every month I went to the doctor's appointment. I had no problem with that, only that it was not with the doctor... I was accompanied by the nurse... (ID9).
>
> I did the prenatal follow up, and the doctor... was a nurse. In this case, she explained and told me the care I had to take, she explained everything straightforwardly. She accompanied me very well during my pregnancy. (ID13).
>
> ... about the follow up I felt more assisted even with the nurses, because the doctors didn't seem to have much information, in the sense that I asked some questions and they didn't answer exactly what I asked, they seemed not to have listened and ended up not answering... (ID19).

Subcategory – Private Health Assistance as an Alternative Prenatal Care Provider

Some participants reported seeking private health services as a viable alternative to the public system for prenatal care, as told by some of the interviewees:

> At first, I started doing prenatal care in a health center and they advised me a lot and I had all the care. Then I went to the health plan... and the care continued the same... (ID21).

> In the public I always complained about this, that I felt very tired, very sluggish, I couldn't do my things and the professionals who assisted me said it was normal, but that I should take some exams. But to take exams in the public is very complicated, very difficult... When I was in the seventh month of pregnancy I started to go there for care through the [health plan] and I took several exams, I was diagnosed with hypothyroidism... So, through the plan the care was much better, prenatal care (ID22).

Subcategory – Women's Concerns Regarding Consultations

The experience of searching for and attending prenatal appointments was frequently described as permeated by feelings of concern and fear arising from the absence of prenatal care, as well as exposure to the virus on public transport, and contact with other patients and professionals in the health services. Examples of such situations are shown in the following passages:

> I would get very stressed, I would get weepy, I would get anxious about how was the baby going to be born in this pandemic and without follow up, without knowing anything. (ID15).

> In the clinic, we were afraid of getting it because it was a totally risky person and it was kind of complicated. (ID2).

> ... sometimes when I went it happened that I was afraid, I was desperate and went back home. (ID24).

Category 3 – Labor and Childbirth during the Pandemic: Experiences of Fear, Anguish and Insecurity

Most participants reported difficulties in accessing health services for childbirth care due to restrictions imposed by some maternity hospitals on low-risk pregnant women as well as overcrowding of such facilities. Such problems made them report such moments as a negative experience, permeated by fear, anguish, and insecurity, exemplified by the following interviewees:

> This experience was not very good, in fact, it was terrible. Because the day I went to have her, the hospital, which was theoretically able to receive me, was full and couldn't receive me, so I went to [the hospital]. And when I got there they did the exams on me and said that since my prenatal was all perfect and the child was all ok, that was not the place for me to stay, even with the contraction and with all the symptoms. Because there was a risk hospital and in this case I was fine, perfect to be in another place and then that gave me anguish... (ID6).

> ...I went there, to [the hospital] and they didn't give me any attention, they told me that I was not close to having and that I only had four centimeters and there was no vacancy there and that I should go to another hospital. And I was already nine centimeters at that time and it wasn't only four. I went to another hospital and there I was well attended to, thank God. (ID9).

Subcategory – Effects of Social Distancing Practices in Public Maternity Hospitals

The adoption of certain practices to contain the spread of the Sars-CoV-2 virus in public maternity hospitals was extensively described by participants in diverse forms. Such practices, e.g. restricting the presence of partners and family in the delivery room, limiting skin to skin contact, and imposing physical distancing between mother and newborn, have been categorized in the literature as forms of obstetric violence[10]. The restriction of companionship during labor, delivery, and the puerperium were associated with feelings of fear, anxiety, and stress, as described by participants in the following statements:

> Then when she said: there's only one thing, your husband can't stay. My world just collapsed [...] So, it was very traumatic for me... (ID6).

> ... when he was born they cleaned the boy and everything, then they only showed me a short time and took the boy away. Then, I went to the room and the boy was not there in the room, then they cleaned me and everything and the baby was not near me. (ID15).

The physical separation between mother and newborn child in maternity wards was often described as a source of feelings of insecurity about the possible risk of exchanging newborns. Admittance to hospital itself also contributed to the emergence of feelings of fear regarding the risk of maternal and neonatal contamination by Covid-19. Such concerns were exposed by mothers in the following quotes:

> You know, it was kind of too traumatic... And then, when the time came, I said: doctor, I want to see my daughter, I want to see my daughter; I don't want her to be swapped. And, since my husband didn't come in, right, and we always see these stories of baby swapping in maternity wards, and I was left with that in my head too. (ID26).

> I was very afraid to even of getting contaminated with Covid or contaminating the baby, I was always very afraid. (ID16).

> I was afraid, but what can I do, the worst was that I stayed next to the rooms of the Covid problem. Even when I was hospitalized, they came to vacate the rooms and the people were cleaning them, and then they took us away from there...(ID25).

Subcategory – Differences between Public and Private Health Services

Additionally, participants reported noticeable differences between public and private services concerning the quality of maternal and child care provided during the pandemic. Specifically, the restrictions imposed in public maternity hospitals were not present in private services. Differences like these were displayed throughout the interviews, exemplified in the following statements:

> Since it was a private clinic, things were a little easier. The doctor who attended me in the emergency room asked if I wanted to induce the birth since it was already passing the day... It was a little bit painful because of the pain, not in terms of the hospital, but in terms of the condition of the hospital and the team I was very well assisted, very well cared for. They always gave me a lot of incentive for me not to give up normal birth because that is what I wanted, and, thank God, I got it. (ID18).

> I chose to go to SUS because I thought that in SUS I would be much more welcomed, I would have better reception, but that was not what happened, it is so when my husband went to sign the authorization to remove me from there she said that if something happened he would be responsible... we already see that it is something totally different ... totally different. (ID30).

DISCUSSION

The research findings suggest that the social and economic repercussions of the Covid-19 pandemic, as it unfolded in this specific geographic region, deeply affected women's experiences of pregnancy, childbirth, and motherhood in a negative way, largely mediated by the impact on the quality of health services delivered during this period, at odds with the model of maternal and child health care proposed in pre-pandemic periods[19].

Feelings of fear, anxiety, insecurity, and stress were typically described as being associated with unplanned pregnancies during such periods. Conversely, married women and women in stable unions reported better acceptance of unplanned pregnancy when compared to single women.

Studies indicate that an unwanted pregnancy is a global problem that serves families and the community, having as related factors: husband's and women's age, age at first sexual intercourse experience, lack of knowledge about the use of contraceptive methods, and low economic and social status[20]. Unplanned pregnancies have been pointed out as being, therefore, a potential threat to maternal and child health, being reportedly associated with negative maternal mental health status[20], as well as adverse effects to child's health[21], especially in psychological and growing and development fields.

In developing countries, failure to provide women with modern contraceptives has been associated with approximately 86% of unintended pregnancies[22]. During the pandemic, local and national lockdowns that strained the closure of health services, physical distancing, and fear of contracting the coronavirus infection contributed to many girls and women not attending health services, adding to the burden of problems faced. by this population and, consequently, the risk of the ability to plan families and take care of their own health[23].

The *Rede Cegonha* is federal policy that aim to ensure women the right to reproductive planning and humanized care towards pregnancy, childbirth, and puerperium. It also safeguards the right of children to safe birth and healthy growth and development, promulgating guidelines and best practices for women's and children's health care at all levels of the Brazilian health care system[19].

The pandemic of Covid-19 has significantly affected the delivery of maternal and child health care within health systems in several countries[24]. In Brazil, the Manual of Recommendations for the Care of Pregnant and Postpartum Women during the Covid-19 Pandemic proposed the following adjustments to standard policies: (1) prenatal consultations should be guaranteed to all pregnant women, though they could be spaced out and performed by telemedicine; (2) examinations should be conducted in person during consults; (3) when possible, in person care of symptomatic pregnant women should be postponed for 14 days, maintaining telemedicine monitoring every 24 hours; (4) by the time of delivery, the companion should be asymptomatic for Covid-19; and, (5) postpartum family visits within tertiary care units were suspended[25].

In this study, heterogeneity in the delivery of prenatal care was reported, including discontinuity of care and lack of home visits as prescribed by policy. Participants described feelings of concern and fear as drivers to seeking private health services. Furthermore, participants reported prenatal care being carried out primarily and exclusively, in some territories, by nurses instead of primary care physicians, which contributed to their concerns.

In several countries, women had difficulties accessing prenatal care during the pandemic[10]. In Brazil, the heterogeneity of quality and adjustments to primary care policies further fostered structural fragility in facing Covid-19[26]. Although telemedicine care was recommended[26] and despite its potential benefits in the Brazilian health system, which include a reduction in emergency room visits and hospital admissions during the pandemic[27], support to primary health care and potential to reorganize the health system[28], effectiveness in managing Covid-19 cases, reducing the risk of cross-contamination and providing support to remote locations[29], adherence to telemedicine has been varied, with several factors influencing its use. Some barriers include workflow integration, equipment costs for healthcare services, and the requirement for a minimum internet bandwidth[30]. Some of the barriers to its use include workflow integration and equipment costs for health services, the require a minimum internet band and a computer or smartphone for users to be able to use this service[30].

The role of nurses in primary health care and other points of care was essential for the continuity and quality of health care provided to women and children during the pandemic by Covid-19[31].

Research shows that the Covid-19 pandemic is a risk factor for obstetric violence[10,32]. The measures adopted by many maternity hospitals to contain the virus have reduced birth rights and compromised standards of care[10,33], with a higher quality of maternal-neonatal care being observed in private hospitals[10].

The time of childbirth has been accompanied by feelings of insecurity and loneliness due to the absence of a companion while admitted to the hospital and reduced emotional support from health professionals during labor[31]. Moreover, evidence suggests that the strictness of protocols for the prevention of Covid-19 by health services is influenced by the skin color of the patient, with a higher number of companion bans being found among black women[34].

Given the above, some interventions adopted in maternity hospitals were widely deemed superfluous, not based on scientific evidence, posing violations of human rights, ineffective in preventing the spread of the virus, and ultimately harmful to maternal newborn health alike[33]. In Brazil, a recent analysis of protocols and guidelines on perinatal health care during the pandemic showed that, in general, the documents brought diverse and sometimes divergent guidelines for maternal health care, favoring the expansion of power relations in the care of women in the pregnant/post-partum cycle[32] and, consequently, threatening the objectives and guidelines proposed by the *Rede Cegonha*.

Similarly, in different countries, divergence in recommendations and a lack of consensus were identified among the practices adopted for the care of pregnant women and newborns, since countries were allowed to follow the local government health agencies or international organizations[35].

CONCLUSION

Whilst seeking to understand the experiences lived by women who were pregnant and gave birth during the Covid-19 pandemic, based on the maternal and child healthcare practiced during the studied period, it was found that the Covid-19 pandemic significantly impacted women during pregnancy, delivery and birth by impacting their health status and seeking behavior, as well as access to and quality of care available.

The results of this study have important implications for the reorientation of maternal and child health care provided by public health services and the proposition of social and healthcare policies aimed at socioeconomically vulnerable populations. The findings highlight the urgency in ensuring access, humanization, and quality of care for women during the pregnant/post-partum cycle at all levels of the healthcare system, with emphasis on primary level assistance as a gateway and coordinator of the network and for the guarantee of access to the maternity hospital for childbirth.

They also point to the fundamental role of nurses as members of the multi-professional health teams responsible for providing care for women in the pregnant/postpartum cycle, especially in primary health care services. Furthermore, results support the need for the implementation of policies, programs, and strategies for social and psychological support for women during this phase of life, especially for those in situations of socioeconomic vulnerability, as well as signaling the need for health systems to have an adequate structure in order to guarantee this population access to health services during health crisis.

This research addresses the experiences and feelings of women who were pregnant, gave birth, and became mothers during the first implementation of strict physical distancing policies, in Fortaleza, Ceara. The resulting findings emphasize the need for the implementation of more humanized models of care for women in contexts of health crisis.

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