







## **FROM PRENATAL TO POSTPARTUM CARE: CHANGES IN OBSTETRIC HEALTH SERVICES DURING THE COVID-19 PANDEMIC**

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### **ABSTRACT**

**Objective:** to analyze changes in maternal health care during the Covid-19 pandemic, according to reports by health professionals.

**Method:** qualitative research, conducted with managers, physicians, nurses, residents and nursing technicians working in a prenatal outpatient clinic, obstetric emergency department, delivery center and obstetric inpatient ward of a high complexity federal public hospital in the Northeast of Brazil. Data were collected from December 2020 to August 2021. The sample, chosen intentionally, sought the diversity of characteristics and situations, was closed by the criterion of saturation of meaning. A structured questionnaire and a semi-structured interview script were used for data collection. The interviews were recorded and transcribed. Content analysis was used in the thematic modality.

**Results:** 28 professionals were interviewed. Changes in the dynamics of obstetric care were identified and categorized as: prenatal care; and childbirth/postpartum. In prenatal care, there was a decrease in elective consultations; increased time between consultations; delayed care due to paramentation; implementation of new hygiene protocols; limitation of the number of companions; creation of new environments such as the Covid-19 isolation room for symptomatic pregnant women; teleservice and work overload due to the increased demand coming from Primary Health Care. In childbirth/postpartum, the reports indicated a reduction in the number of beds; testing and isolation of symptomatic patients; limiting walking, restriction of companions and mandatory use of mask by pregnant woman.

**Conclusion:** the restructuring of services and the creation of new spaces to care for patients with Covid-19 led to a reduction in the availability of vacancies for prenatal and postpartum consultations. The changes were accompanied by new service rules, with setbacks regarding the guarantee of rights.

**DESCRIPTORES:** Covid-19. Pandemics. Health professionals. Obstetrics. Qualitative research.

**HOW CITED:** Almeida RAAS, Carvalho RHSBF, Lamy ZC, Alves MTSSB, Poty NARC, Thomaz EBAF. From prenatal to postpartum care: changes in obstetric health services during the COVID-19 pandemic. *Texto Contexto Enferm* [Internet]. 2022 [cited YEAR MONTH DAY]; 31: e20220206. Available from: <https://doi.org/10.1590/1980-265X-TCE-2022-0206en>

## DO PRÉ-NATAL AO PUERPÉRIO: MUDANÇAS NOS SERVIÇOS DE SAÚDE OBSTÉTRICOS DURANTE A PANDEMIA DA COVID-19

### RESUMO

**Objetivo:** analisar mudanças na assistência à saúde materna durante a pandemia da Covid-19, segundo relatos dos profissionais de saúde.

**Método:** pesquisa qualitativa, realizada com gestores, médicos, enfermeiros, residentes e técnicos de enfermagem atuantes nos setores de ambulatório de pré-natal, emergência obstétrica, hospitalização obstétrica e centro de parto de um hospital público federal de alta complexidade no Nordeste do Brasil. Os dados foram coletados de no período de dezembro de 2020 a agosto de 2021. A amostra, escolhida intencionalmente, buscou a diversidade de características e situações, foi encerrada pelo critério da saturação de sentidos. Questionário estruturado e roteiro semiestruturado de entrevista foram utilizados para coleta dos dados. As entrevistas foram gravadas e transcritas. Empregou-se a análise de conteúdo, na modalidade temática.

**Resultados:** entrevistaram-se 28 profissionais. Foram identificadas mudanças na dinâmica da assistência obstétrica categorizadas em: pré-natal; e parto/puerpério. No pré-natal, houve diminuição das consultas eletivas; aumento do tempo entre consultas; a paramentação atrasava o atendimento; implantação de novos protocolos de higienização; limitação do número de acompanhantes; criação de novos ambientes como a sala Covid-19 para gestantes sintomáticas; teleatendimento e sobrecarga de trabalho pelo aumento da demanda vinda da Atenção Primária à Saúde. No parto/puerpério, os relatos apontaram redução do número de leitos; testagem e isolamento das pacientes sintomáticas; limitação da deambulação, restrição de acompanhantes e obrigatoriedade do uso de máscara pela parturiente.

**Conclusão:** a reestruturação dos serviços e a criação de novos espaços para atendimento de pacientes com Covid-19 ocasionaram redução na oferta de vagas para consultas de pré-natal e pós-parto. As mudanças foram acompanhadas por novas regras de atendimento, com retrocessos quanto à garantia de direitos previamente conquistados.

**DESCRITORES:** Covid-19. Pandemias. Profissionais de saúde. Obstetrícia. Pesquisa Qualitativa.

## DEL PRENATAL AO POSPARTO: CAMBIOS EN LOS SERVICIOS DE SAÚDE OBSTÉTRICOS DURANTE LA PANDEMIA DE LA COVID-19

### RESUMEN

**Objetivo:** analizar los cambios en la atención a la salud materna durante la pandemia de la Covid-19, según relatos de profesionales de la salud.

**Método:** investigación cualitativa, realizada con gerentes, médicos, enfermeros, residentes y técnicos de enfermería que actúan en el ambulatorio de prenatal, emergencia obstétrica, centro de parto y hospitalización obstétrica de un hospital público federal de alta complejidad en el Nordeste de Brasil. Los datos se recopilaron desde diciembre de 2020 hasta agosto de 2021. La muestra, elegida intencionalmente, buscó la diversidad de características y situaciones, se cerró con el criterio de saturación de significados. Para la recolección de datos se utilizó un cuestionario estructurado y un guión de entrevista semiestructurada. Las entrevistas fueron grabadas y transcritas. En la modalidad temática se utilizó el análisis de contenido.

**Resultados:** 28 profesionales fueron entrevistados. Se identificaron cambios en la dinámica de la atención obstétrica categorizados en: atención prenatal; y parto/posparto. En prenatal, hubo disminución de las consultas electivas; mayor tiempo entre citas; el atuendo retrasó el servicio; implementación de nuevos protocolos de higiene; limitar el número de acompañantes; creación de nuevos entornos como la sala Covid-19 para embarazadas sintomáticas; servicio de call center y sobrecarga de trabajo por aumento de demanda desde Atención Primaria de Salud. En parto/posparto, los informes señalaron reducción en el número de camas; pruebas y aislamiento de pacientes sintomáticos; limitación de la deambulación, restricción de acompañantes y uso obligatorio de mascarilla por parte de la parturienta.

**Conclusión:** la reestructuración de los servicios y la creación de nuevos espacios para la atención de pacientes con Covid-19 llevó a una reducción en el número de vacantes para consultas de prenatal y posparto. Los cambios fueron acompañados de nuevas reglas de servicio, con retrocesos en cuanto a la garantía de los derechos previamente conquistados.

**DESCRITORES:** Covid-19. Pandemias. Profesionales de la salud. Obstetricia. Investigación cualitativa.



## INTRODUCTION

The Covid-19 pandemic has changed the reality of health work, both in the outpatient and hospital services. Health management sectors have made a great effort to adapt health services and policies to respond to the needs caused by the pandemic without causing damage to systems and practices that are fundamental to the survival, health and well-being of all. However, the Covid-19 pandemic has changed the dynamics of service provision, especially elective ones, such as prenatal consultations and exams<sup>1-2</sup>, negatively impacting comprehensive care for mother and child.

This global health crisis has been a barrier to achieving sustainable development goals outlined by the United Nations, such as reducing the global maternal mortality rate to less than 70 deaths per 100,000 live births worldwide, and reducing the maternal mortality ratio to a maximum of 30 deaths per 100,000 live births by 2030. The achievement of these objectives depends directly on the maternal mortality ratio, which increased due to COVID infections, and the proportion of births assisted by qualified health personnel that decreased due to the difficulty of access to health services during this period<sup>3</sup>.

The priority in health services has changed. In maternity hospitals, Covid-19 prevention became the main focus and, in the name of safety, protective measures restricted rights and many services were deactivated. In some maternity hospitals in the country, rooming-in was suspended, an increase in medication and cesarean sections, perinatal services were offered remotely, milk banks were closed, reductions in maternity teams due to relocation to Covid-19 areas, all compromising the quality of care<sup>4</sup>.

The pandemic threatened improvements achieved in the last 30 years, concerning the survival, health and well-being of women and newborns due to the unavailability of scientific foundations to support care. Due to the risk posed by the new virus, behaviors, procedures, protocols and rights were reviewed and sometimes suspended given the threat posed by the new disease<sup>4</sup>.

During the health crisis, it was a great challenge for professionals who work with pregnant and postpartum women to maintain good obstetric and neonatal practices. Thus, the continuity of care and support for women's mental health were often interrupted, in order to avoid complications and even deaths of women and newborns from preventable causes<sup>5</sup>.

Amidst the context of insecurity caused by ignorance surrounding the disease and the reduction in the number of professionals, as many were contaminated by the virus, there was an effort on the part of professionals and managers to respond to the crisis resulting from the pandemic. The difficulties in the so-called "first wave" were greater given the limited scientific evidence to support medical decisions, the limited availability of tests, the absence of vaccines, among others<sup>6</sup>.

Through the reports of health professionals, this article sought to understand the context in which health services had to produce changes to adapt the provision of care to a population: pregnant and postpartum women, whose main question consists of: "what changes in maternal health care occurred during the Covid-19 pandemic?"

In this period marked by so many uncertainties, the changes in the organizational dynamics of the obstetrics service are the object of this study. Thus, the objective was to analyze changes in maternal health care during the Covid-19 pandemic, according to reports from health professionals.

## METHODS

A study with a qualitative approach, in the descriptive exploratory modality, conducted based on the Comprehensive Theory, which points out the understanding of the socially lived human reality, through the interpretation of the social action and the meaning attributed to it by the research subjects

as the main function of the social Sciences<sup>7</sup>. The present study was based on the Consolidated Criteria for Reporting Qualitative Research (COREQ Statement)<sup>8</sup> guide tool.

Comprehensive sociology considers the motivation of individuals and groups in the face of the social actions they practice, taking into account the society in which they live. Thus, social reality is the result of forms of relationship between subjects, while the interpretation of the past serves to understand changes. Thus, the comprehensive process is based on the idea that men are active producers of the social and custodians of an important knowledge. Therefore, sociological work consists in interpreting and explaining from collected data<sup>9</sup>.

Thematic content analysis was the analytical method of choice, with the information organized in three phases: Pre-analysis: after transcription of the recorded interviews, the statements were transformed into text through units of sense and meaning. For the apprehension of the central ideas, the determination of the registration units and the constitution of the evidence bodies, where an exhaustive, fluctuating and interrogative reading of all the material studied was carried out. Categorization-exploration of the material phase: the exploration of the material occurred, aiming to reach the core understanding of the text. For such, significant expressions or words were sought, around which the speeches were organized, to order the empirical categories<sup>7</sup>.

The third stage of results analysis and interpretation: the final analysis requires a deeper look, since inferences and interpretations were made, relating the meaning nuclei with the picture under study. This last analysis allows an interface between the object of study and the data found, functioning as an answer to the proposed objectives. Thus, the analysis was based on the thematic presence of words related to the frequency of its appearance, respecting the rules of: exhaustiveness, representativeness, homogeneity and pertinence<sup>7</sup>.

The study was carried out from December 2020 to August 2021 in a high-complexity federal public hospital, located in São Luís - MA, Northeast Brazil, a reference for pregnant women with suspected or confirmed Covid-19 infection. The interviews sought to elicit reports of experiences before and during the pandemic, in the work environment, going through the most critical period in relation to the quantity and speed of the changes caused, until the moment of wide distribution and application of vaccines, as well as a reduction in the number of cases.

Managers, doctors, nurses, residents, as well as nursing technicians working in the obstetric emergency sectors, birth center and obstetric hospitalization were interviewed during the Covid-19 pandemic. For the selection of the sample, representativeness was sought in sociodemographic and work aspects, such as age, gender, profession, education, time and work shifts at the institution.

Twenty-eight health professionals were interviewed: three managers, six physicians (1 resident), ten nurses (1 resident) and nine nursing technicians. The criterion of theoretical data saturation was used to close the sample. Saturation is reached when the speeches repeat information, when there are no new elements for the analysis, representing a sample sufficiency criterion in qualitative research. Thus, data collection was completed when the interviews did not add new information to be analyzed for understanding the object of study<sup>10</sup>. The saturation criterion was reached in interview number 25, but three additional interviews were performed to validate the saturation point, checking the accuracy and reliability of the technique used.

The sample closure by theoretical saturation is operationally defined as the suspension of inclusion of new participants when the data obtained start to present, in the researcher's assessment, a certain redundancy or repetition, not being considered relevant to persist in the data collection. In other words, the information provided by the new research participants would not contribute significantly to the improvement of theoretical reflection based on the data being collected.

Therefore, theoretical saturation is the verification of the moment to interrupt the capture of information pertinent to the discussion of a certain category within a sociological qualitative investigation, taking into account the combination of the following criteria: the empirical limits of the data, the integration of such data with the theory and theoretical sensitivity of those who analyze the data<sup>11</sup>.

The recruitment of participants was based on the following inclusion criteria: managers, doctors, nurses, residents and nursing technicians who worked in a hospital environment during the Covid-19 pandemic, regardless of their training time. The non-inclusion criterion was removal from care due to comorbidities, pregnancy or breastfeeding during the entire period of the pandemic.

Field work began with approaching the research sectors and identifying potential study participants. From the institutional list of workers by sector of the hospital, the professionals who met the inclusion criteria in the research were selected. Then, an invitation was made to participate and, in case of acceptance, a date and time was scheduled, in person or digitally.

The interviews were conducted by the authors, through digital means and took place online, using the Google Meet application or in person, in the hospital itself, following the necessary security measures. The average duration time was 40 minutes. To obtain the data, a structured questionnaire was applied to collect sociodemographic data and professional trajectory, as well as a semi-structured script of interviews, with guide questions focused on the perceptions of professionals regarding changes in demand, supply, dynamics and organization of work spaces.

To ensure the reliability of the reports, the interviews were recorded and later transcribed. The names of the interviewees were replaced by the initials of the professional category: GES for manager, MED for physicians, MR for resident physician, ENF for nurses, ET for nursing technicians and random numbering to preserve their anonymity. For the analysis of this study, content analysis was used in the thematic modality.

Regarding the evaluation of the validity of qualitative Research<sup>12</sup>, there is a list of guiding questions, among them: are the research questions clearly formulated? Is the research design consistent with your objective and questions? Were the theoretical position and expectations of the researcher evidenced? Were explicit rules adopted in the methodological and analytical procedures? Are methodological and analytical procedures well documented? Were data collected in all contexts, times and people suggested by the design? Are the results congruent with theoretical expectations? This method was adopted in this study in order to seek a bias-free analysis and the possibility of extending its results to similar situations, being in accordance with the principles of qualitative research, as these criteria would offer the level of validation in a qualitative gradation.

This study is an integral research of the project entitled "The Covid-19 pandemic and its effects on health management and care in the SUS", approved by the Research Ethics Committee, based on Resolution 466/12 of the National Health Council.

## RESULTS

The age range of respondents ranged from over 25 to under 60 years of age, with an average of 30 years of age. There was a predominance of females and most declared themselves to be married, catholic and brown. The professionals worked in different sectors: prenatal care, emergency, rooming-in, normal delivery center, obstetric surgery center and isolation Covid-19 cases. Most had worked at the institution for a period between 6 and 10 years.

To identify changes in the dynamics of services related to maternal health, from prenatal care to the postpartum period, two categories emerged: prenatal care: changes in supply and demand; and delivery and postpartum assistance: changes and restrictive measures.

## Prenatal care: changes in supply and demand

The professionals interviewed referred to the decrease in the offer of consultations caused by the restriction of care in the public system, including prenatal consultations. There was suspension of outpatient clinics, and consultation schedules were decreased.

*[...] only high-risk prenatal care did not have a decrease, [...] I closed several schedules, because pretty much everything that was elective is gone, right? (MED 3).*

The decrease in the supply of prenatal consultations occurred due to the need for adaptations of work processes in outpatient clinics in order to mitigate the transmission of Covid-19. Thus, there was an increase in the waiting time between consultations. New hygiene protocols were implemented in the places such as waiting rooms, receptions and offices, as well as in the equipment used and office furniture, in addition to limiting the number of people present.

*[...] service adaptations: for the patient to enter [the office], she has to sanitize, clean, change, the patient cannot sit next to the other at the reception, there has to be a break. So, you've already forced, you've limited the amount of care, right? (MED 3).*

In view of the reduction in the supply of obstetric consultations, in the critical period of the pandemic, the hospital sought to create strategies for maintaining services. In this sense, there was an attempt to implement teleservice in order to increase the access of pregnant women to the health service.

*[...] yeah... we started, or tried to do, a telemedicine service. But we realized, with our service, that this was not feasible for obstetrics. Because obstetrics demands a lot of physical examination of the patient (GES 1).*

*[...] most of the time I thought I wasn't being useful, I wasn't making as much difference to the patient in my care (MED 1).*

The offer of prenatal consultation by telemedicine was unsuccessful. The professionals considered this practice inadequate due to the low effectiveness of the consultation related to the level of Functional Health Literacy (FHL) of the patients, and consequent difficulty in understanding the orientations given.

In the city of São Luís, some Basic Health Units (UBS) were intended for the exclusive care of patients with suspicion or confirmation of Covid-19. In these units, the enrolled population, including pregnant women, was redirected to other UBSs, thus reducing the supply of prenatal care by the temporary suspension of activities in such units.

According to the professionals, this reduction caused a greater influx of pregnant women to the emergency sector of the Unit. The demand for the service/host sector increased, especially, to resolve small complaints that, in other situations, could be resolved during the prenatal consultation. Faced with the difficulty of access to consultations, pregnant women sought the emergency service of a maternity hospital for high-risk deliveries.

*[...] The reception service increased because of the closure of prenatal care, right? (MED 1). [...] so, the demand was incredible, of a patient who came to hand in an exam, because she had a urinary complaint, she came to the reception; a patient who was in need of a request to do ultrasound, which she thought needed a request, came to the reception (ENF 1).*

*[...] this is an emergency sector [...]. Our sector is to attend patients urgently, it is not to see the patient in prenatal care and we end up doing prenatal care. Why is that? Because the patients do not have consultations in the health units near their home and, then, there is patient who arrives without prenatal care, because they are not attending. Then they come here and we have to do prenatal care, give orientations (TE 6).*

In addition to implementing new rules, new environments have also been created. The Covid room was the place where the identified pregnant women with flu symptoms, were referred to upon admission. According to information, before the pandemic, the same nurses who worked in the NCP also attended the admission unit, which comprises the reception and risk classification. The creation of this isolation space for patients with suspected virus infection was not accompanied by an increase in the number of professionals in the sector, making care difficult, since the professional needed to adapt to the paramentation required to perform the consultation. This procedure was considered time-consuming and considered a factor that delayed care, in addition to overloading professionals.

*[...] then, we dressed the protective equipment and went to see the patient in the Covid room, which is a remote room, closer to the prenatal care, downstairs, [...]. When the service ended, I, the same nurse who was working downstairs, would come to the room to take care of the others. And the others waiting. If they were in labour, they would give birth (ENF 1).*

*[...] what overloads us is having to care for symptomatic patients, right? And who is down there, in the reception, who ends up delaying the care of those who are waiting, who are not symptomatic. Because you have to stop, you have to do the service in another room, and then all this requires a longer time and ends up causing delays, accumulating a queue, and then dissatisfaction and that's it (ENF 7).*

With the scarcity of health professionals due to the removal of several from the service due to pre-existing conditions, such as chronic diseases, respiratory problems, pregnancy and lactance, illness of many, and due to infection by Covid-19 itself and the sudden increase in the number of patients, work overload resulted, aggravated by the prolongation of working hours.

There was an expansion of the staff, called "selective COVID", but it was reportedly "long after" [GES 1]. The arrival of new employees did not solve the problem as expected, as not all had obstetric experience. After the adaptation phase, many did not even remain.

The use of personal protective equipment (PPE) is part of the hospital routine, and depending on the sector, the amount of equipment required for the production of care is quite significant. However, before the pandemic, not all sectors required such paramentation of professionals and so many hygiene practices for the performance of care. Changes in risk dimensioning caused changes in the use of PPEs, new paramentation requirements affected health care and, in certain situations, became barriers to access to quality care, causing delays to care.

In addition, access difficulties related to the reduction in prenatal care also had an impact on care, resulting in complications for the mother and baby due to lack of care during prenatal care. Several professionals reported the increase in perinatal mortality and the occurrence of fetal losses, they related these adverse outcomes to the absence of adequate and timely prenatal care.

*[...] there was a reduction in prenatal supply in the beginning. It had an impact on some cases. There were some bad results, including fetal losses because of this [...]. We realized that we had a period that the patients were without assistance and when they came, it was too late (GES 1).*

*[...] in my opinion, the pandemic has caused many negative consequences like this, right? Now, we observe women coming up with a lot of hypertensive disorder, because it was not controlled, without doing prenatal care, many, many cases of abortion, do you understand? So, we observe that it is a result, you know, of in adequate family planning and prenatal care (ENF 5).*

According to the professionals interviewed, another poor experience concerns the decrease in the supply of beds for obstetric pathologies, due to the rearrangement of beds to increase the availability of isolation for cases of pregnant women with Covid-19.

*[...] we were left with a significant reduction in the number of beds [...] We had to reduce, there was no way, do you understand? We only hospitalized the strictly necessary cases (MED 2).*

*[...] we had to isolate an area to put possible Covid or positive Covid cases. We left a ward that was only for pregnant and preoperative and postoperative gynecological surgery to isolate Covid cases [...] We took one of our biggest wings, which is where we work the most, to be able to install a Covid unit, because it there was a time when it was full (MR).*

Thus, at the beginning of the pandemic, the decrease in supply and demand for obstetric care produced severe and often irremediable damage to maternal and perinatal health. This moment has been described as complicated and difficult.

### **Childbirth and postpartum care: changes and restrictive measures**

According to reports, at the beginning of the pandemic (March to August 2020), changes were made in the physical structure and in the organization of the work of professionals who worked in these sectors. Some of these changes have consequently caused barriers in the provision of childbirth care during the pandemic.

At the time of admission, not all patients were tested. Due to the initial difficulty of access to the tests, related to scarcity and high cost, only women who presented symptoms were tested and were put in isolation, the test results took 7 to 10 days. However, there was also concern with asymptomatic patients, living with others, in a physical space considered small by professionals.

Creating isolation and establishing new rules in the NPC was also another challenge. The new rules to avoid contamination between parturients and professionals significantly restricted the actions of women in labor.

*[...] we also couldn't explain to the companion why that woman was going to be in labor alone. And even more, explain to the pregnant woman that she had to use a mask during labor all the time. And she, screaming, in a lot of pain, with a lot of pain, and having to wear a mask (ENF 1).*

*[...] when they [the patients] are there for 15 or 20 days [of hospitalization], almost a month, they [the companions] want to go every day [visit]: 'but I wanted to at least see! Especially the mother and the husband. They stay and cry, and she [patient] cries on the other side, do you understand? (TE2).*

Faced with the need to avoid greater risks, practices that recognize women's rights and protagonism are no longer the priority, causing suffering to labouring women, family members and professionals who attended them. Limiting walking, requesting the patient to wear a mask at the time of delivery and preventing the companion from being present with the woman were among the measures taken by the professionals who perceived how much the new practices contradicted the previous ones.

The compulsory reduction in the number of available beds, necessary to maintain the isolation of pregnant women diagnosed or suspected of Covid-19, made access to hospitalization difficult. Given the need to keep only one person hospitalized in each ward that previously had a larger number, from two to four beds, there was a decrease in the supply of beds for hospitalization. Thus, it is possible that pregnant women with high-risk pregnancies and delivery referred to this maternity hospital have faced difficulties regarding access and hospitalization for childbirth.

*[...] we had to close beds and make entire wards available for just one isolated patient. So this was difficult, because we had to reduce the number of hospitalizations in some way (GES 1). [...] our space is very reduced, almost always at full capacity due to Covid (TE3).*



Admission to the Covid ward was described as one of many delicate situations, due to the refusal of patients to remain in isolation and companions to leave the woman alone. According to professionals, there was even denial of symptoms by patients who resisted isolation, claiming that the place caused them anxiety. This situation caused doubts among the team professionals about the best course of action to be adopted at that time. Psychological care for hospitalized and isolated patients was adopted with the aim of minimizing the suffering caused by the restrictions imposed on the patient.

*[...] some patients refused to go to isolation. [...] Companions who refused to leave, to leave the patient alone, because they did not accept it [GES 1].*

*[...] the professional already knows to ask if the patient has any flu-like symptoms. Then the patient, sometimes, even omits because she thinks that when we ask, she will not be attended. They say, 'no, I don't have.' When they arrive in the room to talk to us, then they say: "oh, I have symptoms (TE 6).*

The administrative sector of the hospital acted intensely on the amount and intensity of movement of people in the hospital environment. This control was exercised more restrictively on the patient companion. A stricter limit of the companion's access was associated with the fear that circulation in environments outside the hospital would bring contamination into the hospital environment.

*[...] what changed.... for the patient in isolation, and what I think is bad, is that she cannot have a companion. In my opinion, in some places, patients have companions, but they can't go out. And here, a companion is not allowed with the patient, at any time. So, for them it's bad, they stay alone, in a locked room for several days... (ENF 2).*

*[...] and then the person entered the isolation, could not receive a visit from anyone and sometimes ended up being alone. There were people who were not hospitalized, there were people who went away (ENF 1).*

From the perspective of those who worked very closely in the care of women, the isolation and impossibility of being accompanied by family members produced intense suffering in women, as observed by professionals. Through these reports, the professionals sought to express the changes in prenatal, childbirth and immediate postpartum care, and their effects.

## **DISCUSSION**

In this qualitative research, carried out with managers, physicians, nurses, residents and nursing technicians of women's health in a reference center for the care of pregnant women, parturients and postpartum women with Covid-19 in one of the poorest states of Brazil, in the Northeast region, changes were identified in the dynamics of services related to maternal health, from prenatal care to the postpartum period. The restructuring of services and the creation of new spaces for the care of patients with Covid-19 led to a decrease in the number of services provided. Changes in the organization of spaces and professional practices in the hospital environment were accompanied by new care rules.

In order to monitor the evolution of pregnancy and to identify early risk factors for maternal-fetal morbidity and mortality, prenatal consultations and procedures need to be offered continuously, despite concern about exposure and the risk of contagion of pregnant women and infants, as the total suspension of elective services may result in negative perinatal outcomes<sup>5</sup>.

Prenatal care during the pandemic was problematic due to the temporary suspension of UBS activities, which are no longer a gateway, guaranteeing quality, integral, coordinated and continuous access. Consultations were no longer carried out at the UBS and there was a redirection to reference maternity hospitals. Thus, women began to be treated in units other than those they were used to, where they had access and where they were welcomed, resulting in a potential problem for patients in relation to the distance and the strangeness of being in an unknown unit, starting or continuing the pre-natal with an unknown team, and the resulting overload for maternity professionals<sup>13</sup>.

In addition, the pandemic has made contact, respiratory, social distancing and other safety measures necessary. There was a recommendation to “stay at home”, as the risks that the disease specifically represented for pregnant women and newborns were not known<sup>14-15</sup>. This significantly affected women’s health care, causing feelings of uncertainty and fear<sup>16-18</sup>.

In Maranhão, the first decree of lockdown in Brazil took place, announced on April 30, 2020, by court decision, motivated by the total occupation of beds in the Intensive Care Unit (ICU) of the state public network dedicated to Covid-19, among other factors<sup>19</sup>.

Due to the circumstances of the Covid-19 pandemic, the Brazilian Ministry of Health, through Ordinance No. 467 of March 20, 2020, authorized the use of telemedicine with technology, exceptionally and temporarily, to regulate and operationalize measures to combat this public health emergency. In order to reduce the distance between the population and the health system, at the time of changes in the supply and demand of services, telephone contact and telemedicine were considered as a service option internationally<sup>20</sup>.

Communication between user and health professional may be affected by the level of Functional Literacy in Health (SLF)<sup>21</sup>, which consists of the “ability to understand, interpret and apply written or spoken information about health”<sup>22</sup>, especially among individuals with lower educational level and low socioeconomic conditions. These skills to have access, understand, evaluate and apply guidance are an important resource for health promotion. Thus, low competence in SLF can compromise individual and collective health by resulting in: low capacity to manage one’s own health and the disease process; low adherence to measures to promote disease prevention and medication use; and low levels of knowledge about chronic diseases and health services.

The Brazilian Association of Obstetric Nurses and Midwives, together with the Brazilian Society of Pediatric Nurses, advised that all pregnant women admitted to a hospital environment and their companions undergo screening for flu signs and symptoms. In case of suspected or confirmed Covid-19 infection, in addition to wearing a surgical mask, they should be isolated from other patients, have a limited number of companions and visits. In addition, the circulation of both in the hospital space should be restricted<sup>23</sup>. In this sense, environments were created in the hospital, such as the Covid room to accommodate symptomatic women in need of care, a place that promotes the isolation of other patients, with a limitation on the number of companions<sup>24</sup>.

Another strategy for the protection of women and their babies, as well as health professionals during the pandemic, was universal testing. It favors care by allowing better monitoring of women with Covid-19 as well as the adoption of transmission prevention measures for professionals, other patients and babies, and allows the recognition of the prevalence of Covid-19 in this population<sup>25</sup>. Furthermore, it enables better planning of referral flows, delivery care and greater vigilance regarding the prevention of complications and maternal and neonatal deaths<sup>13</sup>. At the time of the research, there was only the expectation and hope of a vaccine.

The need for patient isolation has resulted in a reduction in the hospitalization capacity of hospitals, when, according to research, pregnant women affected by Covid-19 are about twelve

times more likely to be hospitalized and twice as likely to need ventilatory assistance. In this way, with greater demand and less supply of beds, it is essential to reinforce the care provided to these women and provide the necessary resources to assist them<sup>14,26</sup>.

In this scenario, the World Health Organization (WHO) ensures that all pregnant women, even those with flu-like illness, should receive woman-centered, respectful and qualified care. There is no evidence that contraindicates vaginal delivery. Therefore, the choice of mode of delivery must be individualized. Skin-to-skin contact at birth, breastfeeding and rooming-in between the mother and the newborn should be encouraged, regardless of the suspicion, likelihood or confirmation of Covid-19 infection. In addition, these patients should be offered information about scientifically proven precautionary measures<sup>27</sup>.

Due to the risk of eliminating aerosols during speech, coughing, sneezing and consequent proliferation of the infection, it is recommended that the woman stay in a single room and use a surgical mask throughout labor, although there is difficulty in maintaining adequate use of the mask by the woman during labor<sup>27</sup>.

The Companion Law (Law 11.108/2005), which guarantees the presence of a person of the woman's choice with her in all stages of childbirth, must also be respected, as isolation harms the woman's mental health and favors feelings of loneliness, anxiety and depression. The restriction of companions of pregnant, parturient and postpartum women, justified by the pandemic in some health services, violates this right and causes negative results in the health of the mother-baby dyad<sup>13</sup>.

Despite this, this study identified restrictions on the presence of a companion in the hospital environment, violating the rights guaranteed by law. Thus, with initially little knowledge available about the disease and no vaccine, the pandemic caused a temporary suspension of women's rights in the pregnancy-postpartum cycle by leading to changes in health services in the provision of humanized services, establishing restrictions and interventions in childbirth<sup>28</sup>. In the event of risks, rights were suspended, but once this moment has been overcome, it is essential that all these rights return to expand women's autonomy during the pregnancy-postpartum cycle and to avoid violence.

Caring for people is a complex function, as it requires technique, knowledge, involves feelings and human relationships, which, especially at a time of great work overload, can cause signs and symptoms of suffering in health professionals. Therefore, with the advent of the Covid-19 pandemic, the complexity of health work increased, as in addition to the usual situations of managing pain, suffering, death and loss, they began to suffer greater pressure related to several factors, even work conditions which were sometimes inadequate<sup>29-30</sup>.

## FINAL CONSIDERATIONS

Covid-19 has changed the dynamics of offering elective, urgent and emergency services in maternal care, causing barriers to access, difficulties in prenatal care, delivery, postpartum; also highlighting the environmental and behavioral changes that represented impacts on the quality of care.

Several changes in the work processes of health professionals were necessary during the pandemic, some, however, did not achieve the expected success, such as the offer of consultation by telemedicine. Faced with lack of knowledge and risk, there were also setbacks in good practices for humanizing delivery and birth care.

As it was carried out in the context of a pandemic, a period with significant overload on the public health system, at the three levels of complexity, this study provided a greater understanding of the effects of the pandemic in this scenario. Identified evidence that can serve as subsidies for future decisions in the health system, related to care, planning and even management, in times of health crisis, to mitigate impacts on health care, in order to always guarantee the best care possible for the population, as well as adequate working conditions for health professionals.

## REFERENCES

1. Ministério da Saúde (BR). Protocolo de manejo clínico do coronavírus (covid-19) na Atenção Primária à Saúde: versão 9 [Internet]. Brasília, DF(BR): Ministério da Saúde; 2020 [cited 2022 Nov 4]. Available from: <https://docs.bvsalud.org/biblioref/2020/05/1095920/20200504-protocolomanejo-ver09.pdf>
2. Reis RRR, Samea BLH, Moreira DH. A experiência de atendimento de pré-natal em tempos de pandemia de covid-19 The experience of prenatal care in times of the covid-19 pandemic. *Braz J Develop* [Internet]. 2021 [cited 2022 Nov 4];7(12):119356-70. Available from: <https://doi.org/10.34117/bjdv7n12-617>
3. Maza-Arnedo F, Paternina-Caicedo A, Sosa CG, Mucio B, Rojas-Suarez J, Say L, et al. Maternal mortality linked to COVID-19 in Latin America: results from a multi-country collaborative database of 447 deaths. *Lancet Reg Health Am* [Internet]. 2022 [cited 2022 Nov 4];12(2):100269. Available from: <https://doi.org/10.1016/j.lana.2022.100269>
4. Renfrew MJ, Cheyne H, Craig J, Duff E, Dykes F, Hunter B, et al. Sustaining quality midwifery care in a pandemic and beyond. *Midwifery* [Internet]. 2020 [cited 2022 Jan 5];88:102759. Available from: <https://doi.org/10.1016/j.midw.2020.102759>
5. Rondelli G, Jardim D, Hamad G, Luna ELG, Marinho WJN, Mendes LL, et al. Assistência às gestantes e recém-nascidos no contexto da infecção covid-19: uma revisão sistemática. *Desafios* [Internet]. 2020 [cited 2022 Jun 10];7(3):48-74. Available from: <https://doi.org/10.20873/uftsuple2020-8943>
6. Ministério da Saúde (BR). Painel de casos de doença pelo coronavírus (COVID-19) no Brasil pelo Ministério da Saúde [Internet]. Brasília, DF(BR): Ministério da Saúde; 2022 [cited 2022 Jan 5]. Available from: <https://covid.saude.gov.br/>
7. Minayo MCS. O desafio do conhecimento: pesquisa qualitativa em saúde. 13th ed. São Paulo, SP(BR): Hucitec-Abrasco; 2013.
8. Souza VRDS, Marziale MHP, Silva GTR, Nascimento PL. Tradução e validação para a língua portuguesa e avaliação do guia COREQ. *Acta Paul Enferm* [Internet]. 2021 [cited 2022 Apr 10];34:eAPE02631. Available from: <https://doi.org/10.37689/acta-ape/2021AO02631>
9. Kaufmann J-C. A entrevista compreensiva: um guia para pesquisa de campo. Petrópolis, RJ(BR): Vozes; 2013.
10. Silverman D. Interpretação dos dados qualitativos: métodos para análise de entrevistas, textos e interações. Porto Alegre, RS(BR): Artmed; 2009.
11. Fontanella BJB, Ricas J, Turato ER. Amostragem por saturação em pesquisas qualitativas em saúde: contribuições teóricas. *Cad Saúde Pública* [Internet]. 2008 [cited 2022 Nov 4];24(1):17-27. Available from: <https://doi.org/10.1590/S0102-311X2008000100003>
12. Ollaik LG, Ziller HM. Concepções de validade em pesquisas qualitativas. *Educ Pesqui* [Internet]. 2012 [cited 2022 Nov 4];38(1):229-42. Available from: <https://doi.org/10.1590/S1517-97022012005000002>
13. Silva ALM, Oliveira AS, Ruas BJS, Barbosa LPLP, Landim MEPA, Bruno RR, et al. Os impactos no pré-natal e na saúde mental de gestantes durante a pandemia de COVID-19: uma revisão narrativa. *Rev Eletrônica Acervo Cient* [Internet]. 2021 [cited 2022 Jun 10];34:e8633-e8633. Available from: <https://doi.org/10.25248/reac.e8633.2021>
14. Qeadan F, Mensah NA, Tingey B, Stanford JB. The risk of clinical complications and death among pregnant women with covid-19 in the cerner covid-19 cohort: a retrospective analysis. *BMC Pregnancy Childbirth* [Internet]. 2021 [cited 2022 Jun 10];21(1):305. Available from: <https://doi.org/10.1186/s12884-021-03772-y>

15. Grossi M, Toniol R. Cientistas sociais e o Coronavírus [Internet]. São Paulo, SP(BR): ANPOCS; 2020 [cited 2022 Jun 16]. Available from: [http://anpocs.com/images/stories/boletim/boletim\\_CS/livro\\_corona/Livro\\_Cientistas%20Sociais\\_eo\\_Coronavi%CC%81rus.pdf](http://anpocs.com/images/stories/boletim/boletim_CS/livro_corona/Livro_Cientistas%20Sociais_eo_Coronavi%CC%81rus.pdf)
16. Mirzakhani K, Shoorab NJ, Akbari A, Khadivzadeh T. High-risk pregnant women's experiences of the receiving prenatal care in COVID-19 pandemic: a qualitative study. *BMC Pregnancy Childbirth* [Internet]. 2022 [cited 2022 Apr 10];22(1):363. Available from: <https://doi.org/10.1186/s12884-022-04676-1>
17. Stampini V, Monzani A, Caristia S, Ferrante G, Gerbino M, Pedrini A, et al. The perception of Italian pregnant women and new mothers about their psychological wellbeing, lifestyle, delivery, and neonatal management experience during the COVID-19 pandemic lockdown: a web-based survey. *BMC Pregnancy Childbirth* [Internet]. 2021 [cited 2022 Apr 15];21(1):473. Available from: <https://doi.org/10.1186/s12884-021-03904-4>
18. Akhter S, Kumkum FA, Bashar F, Rahman A. Exploring the lived experiences of pregnant women and community health care providers during the pandemic of COVID-19 in Bangladesh through a phenomenological analysis. *BMC Pregnancy Childbirth* [Internet]. 2021 [cited 2022 Apr 10];21(1):810. Available from: <https://doi.org/10.1186/s12884-021-04284-5>
19. International Confederation of Midwives. Women's rights in childbirth must be upheld during the coronavirus pandemic. [Internet]. 2020 [cited 2021 Mar 10]. Available from: <https://internationalmidwives.org/assets/files/news-files/2020/03/spanish-statement.pdf>
20. Ministério da Saúde (BR). Nota Informativa nº 13/2020 - SE/GAB/SE/MS. Recomendações acerca da atenção puerperal, alta segura e contracepção durante a pandemia da Covid-19. Brasília, DF(BR): Ministério da Saúde; 2020 [cited 2021 Mar 10]. Available from: [https://portaldeboaspraticas.iff.fiocruz.br/wp-content/uploads/2020/05/SEI\\_MS-0014644803-Nota-Te%CC%81cnica-5.pdf](https://portaldeboaspraticas.iff.fiocruz.br/wp-content/uploads/2020/05/SEI_MS-0014644803-Nota-Te%CC%81cnica-5.pdf)
21. Lopes Marques SR, Escarce Gonzalez A, Lemos SMA. Letramento em saúde e autopercepção de saúde em adultos usuários da atenção primária. *CoDAS* [Internet]. 2018 [cited 2022 Apr 10];30(2):e20170127. Available from: <https://doi.org/10.1590/2317-1782/20182017127>
22. Passamai MPB, Sampaio HAC, Dias AMI, Cabral LA. Letramento funcional em saúde: reflexões e conceitos sobre seu impacto na interação entre usuários, profissionais e sistema de saúde. *Interface* [Internet]. 2012 [cited 2022 Jun 10];16(41):301-14. Available from: <https://doi.org/10.1590/S1414-32832012005000027>
23. Associação Brasileira de Obstetrias e Enfermeiros Obstetras, Sociedade Brasileira de Enfermeiras Pediatras (BR). Nota técnica referente aos cuidados da equipe de enfermagem obstétrica, neonatal e pediátrica diante de caso suspeito ou confirmado [Internet]. São Paulo, SP(BR): Abenfo; 2020 [cited 2022 Jun 10]. Available from: [https://sobep.org.br/wp-content/uploads/2020/04/Nota-Tecnica-COVID-19-Enfermagem-ObstA%CC%83%C2%A9%EF%B8%8Ftrica\\_Neo\\_Ped.pdf](https://sobep.org.br/wp-content/uploads/2020/04/Nota-Tecnica-COVID-19-Enfermagem-ObstA%CC%83%C2%A9%EF%B8%8Ftrica_Neo_Ped.pdf)
24. Paixão JN, Campos LM, Carneiro JB, Fraga CDS. A solidão materna diante das novas orientações em tempos de SARS-COV-2: um recorte brasileiro. *Rev Gaúcha Enferm* [Internet]. 2021 [cited 2022 Jan 15];42(spe):1-13. Available from: <https://doi.org/10.1590/1983-1447.2021.20200165>
25. Menezes MDO, Andreucci CB, Nakamura-Pereira M, Knobel R, Magalhães CG, Takemoto MLS. Testagem universal de COVID-19 na população obstétrica: impactos para a saúde pública. *Cad Saúde Pública* [Internet]. 2020 [cited 2022 Jun 10];36(8):1-5. Available from: <http://doi.org/10.1590/0102-311X00164820>
26. Liu Y, Chen H, Tang K, Guo Y. Clinical manifestations and outcome of SARS-CoV-2 infection during pregnancy. *J Infect* [Internet]. 2020 [cited 2022 Jun 10];S0163-4453(20)30109-2. Available from: <https://doi.org/10.1016/j.jinf.2020.02.028>
27. World Health Organization. Clinical management of severe acute respiratory infection (SARI) when COVID-19 disease is suspected: interim guidance [Internet]. Geneva: WHO; 2020 [cited

2021 Jun 20]. Available from: <https://apps.who.int/iris/bitstream/handle/10665/331446/WHO-2019-nCoV-clinical-2020.4-eng.pdf?sequence=1&isAllowed=y>

28. Sadler M, Leiva G, Olza I. Covid-19 as a risk factor for obstetric violence. *Sex Reprod Health Matters* [Internet]. 2020 [cited 2022 Jun 10];28(1):1785379. Available from: <https://doi.org/10.1080/26410397.2020.1785379>
29. Miranda FBG, Yamamura M, Pereira SS, Pereira CS, Protti-Zanatta ST, Costa MK, et al. Sofrimento psíquico entre os profissionais de enfermagem durante a pandemia da COVID-19: scoping review. *Esc Anna Nery* [Internet]. 2021 [cited 2022 Apr 10];25(spe):1-10. Available from: <https://doi.org/10.1590/2177-9465-EAN-2020-0363>
30. Takemoto ML, Menezes MDO, Andreucci CB, Nakamura-Pereira M, Amorim MM, Katz L, et al. The tragedy of COVID-19 in Brazil: 124 maternal deaths and counting. *Int J Gynaecol Obstet* [Internet]. 2020 [cited 2022 Jun 16];151(1):154-6. Available from: <https://doi.org/10.1002/ijgo.13300>

## NOTES

### ORIGIN OF THE ARTICLE

Article extracted the thesis - Covid-19 pandemic in the work environment: perspectives of professionals involved in maternal health care presented to the Graduate Program in Collective Health, Universidade Federal do Maranhão, in 2022.

### CONTRIBUTION OF AUTHORITY

Study design: Almeida RAAS, Carvalho RHSBF, Lamy ZC, Alves MTSSB, Thomaz EBAF.

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Data analysis and interpretation: Almeida RAAS, Carvalho RHSBF.

Discussion of results: Almeida RAAS, Carvalho RHSBF, lamy ZC, Alves MTSSB, Poty NARC, Thomaz EBAF.

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### APPROVAL OF ETHICS COMMITTEE IN RESEARCH

Approved by the Ethics Committee in Research of the Universidade Federal do Maranhão University Hospital, opinion no.4,234,296, Certificate of Presentation for Ethical Appreciation 35645120.9.0000.5086.

### CONFLICT OF INTEREST

There is no conflict of interest.

### EDITORS

Associated Editors: Jaime Alonso Caravaca-Morera, Ana Izabel Jatobá de Souza.

Editor-in-chief: Elisiane Lorenzini.

### HISTORICAL

Received: August 05, 2022

Approved: November 11, 2022

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