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RESEARCH ARTICLE (ORIGINAL)

Perspectives of pregnant women with COVID-19 on childbirth care practices

Práticas de assistência ao parto e nascimento na perspetiva de gestantes com COVID-19

Prácticas de asistencia al parto y nacimiento desde la perspectiva de gestantes con COVID-19

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Abstract
Background: The COVID-19 pandemic has aggravated childbirth care practices.
Objective: To understand the perception of pregnant women with COVID-19 on the applicability of best childbirth care practices.
Methodology: Exploratory and descriptive study, with a mixed methods approach, carried out with 23 pregnant women with COVID-19 in a Brazilian public hospital.
Results: The general corpus comprised 23 texts with 249 Text Segments (TS). The analyzed content was categorized into five classes: COVID-19 in the context of NB health, with 56 TS (22.49%); Humanized childbirth and COVID-19, with 51 TS (20.48%); The uncertainty of maternal and fetal risks, with 39 TS (15.66%); Childbirth experience in the COVID-19 pandemic, with 67 TS (26.91%); and Knowledge about symptoms and prevention against COVID-19, with 36 TS (14.46%).
Conclusion: Pregnant women have little knowledge about the policy and their right to autonomy in labor and postpartum, evidencing inadequate practices during the pandemic.

Keywords: humanized childbirth; coronavirus infections; hospital assistance; pregnant

Resumo
Enquandramento: A pandemia de COVID-19 agravou as práticas de cuidar das mulheres no momento do parto.
Objetivo: Compreender a perceção das grávidas com COVID-19 acerca da aplicabilidade das boas práticas de assistência ao parto e nascimento.
Metodologia: Estudo exploratório e descritivo, com abordagem mista, realizado com 23 gestantes com COVID-19, num hospital público brasileiro.
Resultados: O *corpus* geral consistia em 23 textos, com aproveitamento de 249 Segmentos de Texto (ST). O conteúdo analisado foi categorizado em cinco classes: COVID-19 no contexto da saúde do RN, com 56 STs (22,49%); Parto humanizado e COVID-19, com 51 STs (20,48%); A incerteza dos riscos maternos e fetais, com 39 STs (15,66%); Experiência do parto na pandemia por COVID-19, com 67 STs (26,91%); e Conhecimento sobre sintomas e prevenção contra a COVID-19, com 36 STs (14,46%).
Conclusão: Foram encontradas gestantes com pouco conhecimento sobre a política e o seu direito à autonomia no trabalho de parto e pós-parto, evidenciando diversas práticas inadequadas durante a pandemia.

Palavras-chave: parto humanizado; infecções por coronavírus; assistência hospitalar; gestante

Resumen
Marco contextual: La pandemia de COVID-19 ha empeorado las prácticas asistenciales de las mujeres en el momento del parto.
Objetivo: Comprender la percepción de las mujeres embarazadas con COVID-19 sobre la aplicabilidad de las buenas prácticas en la atención al parto.
Metodología: Estudio exploratorio y descriptivo, con enfoque mixto, realizado con 23 gestantes con COVID-19 en un hospital público brasileño.
Resultados: El corpus general constó de 23 textos, y se utilizaron 249 segmentos de texto (ST). El contenido analizado se clasificó en cinco clases: COVID-19 en el contexto sanitario del RN, con 56 ST (22,49%); parto humanizado y COVID-19, con 51 ST (20,48%); la incertidumbre de los riesgos maternos y fetales, con 39 ST (15,66%); experiencia del parto en la pandemia por COVID-19, con 67 ST (26,91%), y conocimientos sobre los síntomas y la prevención de la COVID-19, con 36 ST (14,46%).
Conclusión: Se observó que las gestantes tenían pocos conocimientos sobre la política y su derecho a la autonomía en el parto y el posparto, lo que puso de manifiesto varias prácticas inadecuadas durante la pandemia.

Palabras clave: parto humanizado; infecciones por coronavírus; asistencia hospitalaria; embarazada

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Introduction

In Brazil, childbirth care remains a challenge, both in terms of quality and overuse of childbirth interventions. Care becomes more complex at times of increased pressure, such as during the SARS-CoV-2 pandemic.
Therefore, taking into account the responsibility of health teams, particularly the obstetric health teams, this study sought to investigate the perception of pregnant women with COVID-19 on implementing best childbirth care practices in their delivery and childbirth experiences during the pandemic. It is crucial to demonstrate the essential guiding roles of professionals in best childbirth care practices and their implementation during the pandemic.
Thus, the objective was to understand the perceptions of pregnant women with COVID-19 on the applicability of best childbirth care practices.

Background

The Program for Humanization of Prenatal and Childbirth Care (PHPN), created by the Brazilian Ministry of Health through Ordinance/GM No. 569 of 01/06/2000, is based on the analysis of specific care needs for pregnant women, newborns (NB), and puerperal women, determining the unrestricted right of pregnant women to choose the mode of delivery, which must be respected, mainly when they are properly guided and supported throughout the pregnancy and delivery process.
According to the PHPN policy, the WHO recommendations on maternal and newborn care categorize standard practices in normal childbirth and guide health professionals for delivery and childbirth (Lopes & Aguiar, 2020). Thus, to reinforce the importance of humanized conduct in Brazil, the Ministry of Health issued Ordinance No. 353 of 14 February 2017, approving the National Guidelines for Assistance to Normal Childbirth that guide health professionals and women in the most common delivery and childbirth care practices.
Health professionals consider that WHO recommendations on maternal and newborn care are related to light health care interventions, that is, to good-quality prenatal care, support, the free will of women in all childbirth phases, and, above all, the family and/or partner's inclusion in the delivery (Pereira et al., 2018).
However, the literature reports some childbirth care situations that occurred during the COVID-19 pandemic, such as no partners allowed during childbirth (Davis-Floyd et al., 2020), mother-child separation (Davis-Floyd et al., 2020; Ferraiolo et al., 2020; Lyra et al., 2020), cesarean section without medical indication (Davis-Floyd et al., 2020; Ferraiolo et al., 2020; Juan et al., 2020; Lyra et al., 2020), immediate induction of labor (Grimminck et al., 2020), resulting from health services' insecurity and fear of empirical application of new care procedures on COVID-19 transmissibility (vertical, placental, or breastfeeding).
Thus, given the uncertainties still present in obstetric care, further scientific studies should be conducted to legitimize and call upon health professionals to the effectiveness of implementing the WHO health policy.

Research question

What are the perceptions of pregnant women with COVID-19 on the applicability of best childbirth care practices during the pandemic?

Methodology

An exploratory, retrospective, and descriptive study with a mixed-methods approach was carried out in the Obstetrics Unit of a Brazilian public hospital. The sample consisted of 23 ex-pregnant women with COVID-19 who had their children during the pandemic, aged 18 years or older, and selected by random sampling. Participants underwent obstetric care procedures and were admitted and hospitalized in that hospital from March to June 2020, coinciding with the first wave of the COVID-19 outbreak.
Data was collected through semi-structured interviews in July 2020 with the following questions: What do you know about COVID-19 symptoms and preventive measures? How did you feel about your delivery and the COVID-19 pandemic? Did the health professionals respect you and provide a humanized birth? What is your opinion about humanized childbirth and COVID-19? When you said you had the flu, did you notice any difference in the actions or attitudes of health professionals? Did you ever feel that your rights were not respected? Can you tell if this virus harms your pregnancy? And your baby?
It should be noted that there were still uncertainties about the modes of transmission, treatment, and creation of protocols, so, for security reasons, interviews were applied through telephone calls, which took place in a quiet place reserved by the researcher, ensuring the privacy and confidentiality of the recordings made. The recording of the telephone call was used to categorize and analyze the statements, being exclusively accessible to the researcher in charge and deleted after data analysis.
For data analysis, the free software interface *R pour les Analyses Multidimensionnelles de Textes et de Questionnaires* (IRAMUTEQ) was used, using the Descending Hierarchical Classification (DHC) to measure the dendrogram data, according to the classes generated, considering the words with $x^2 > 3.84$ ($p < 0.05$). Subsequently, a word cloud was generated, which unifies the words and organizes them graphically according to their frequency in the textual analysis.
This study complied with Resolution 466/12 of the National Health Council and is supported by the consubstantiated opinion No. 4,128,374 of the Ethics Committee of the University of Fortaleza.

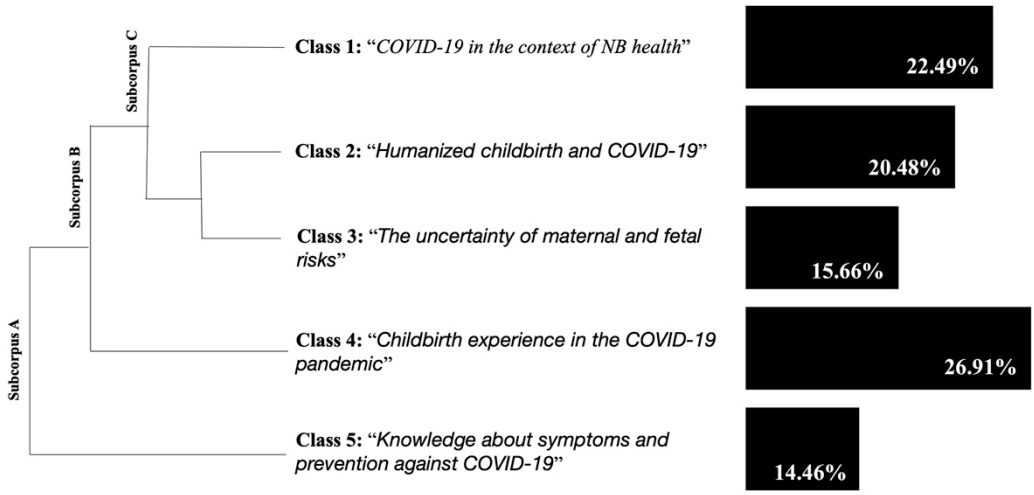
Results

Descending Hierarchical Classification

The general corpus consisted of 23 texts, separated into 286 Text Segments (TS), with 249 TS (87.06%) used. A total of 5648 occurrences (words, linguistic forms, or vocables) emerged, of which 1007 were distinct words, and 502 had a single occurrence. The analyzed content was categorized into five classes: Class 1 - COVID-19 in the context of NB health, with 56 ST (22.49%); Class 2 - Humanized childbirth and COVID-1, with 51 ST (20.48%); Class 3 - The uncertainty of maternal and fetal risks, with 39 ST (15.66%); Class 4 - Childbirth experience in the COVID-19 pandemic, with 67 ST (26.91%) and Class 5 - Knowledge about symptoms and prevention against COVID-19, with 36 ST (14.46%; Figure 1).

Figure 1

Dendrogram of the Descending Hierarchical Classification

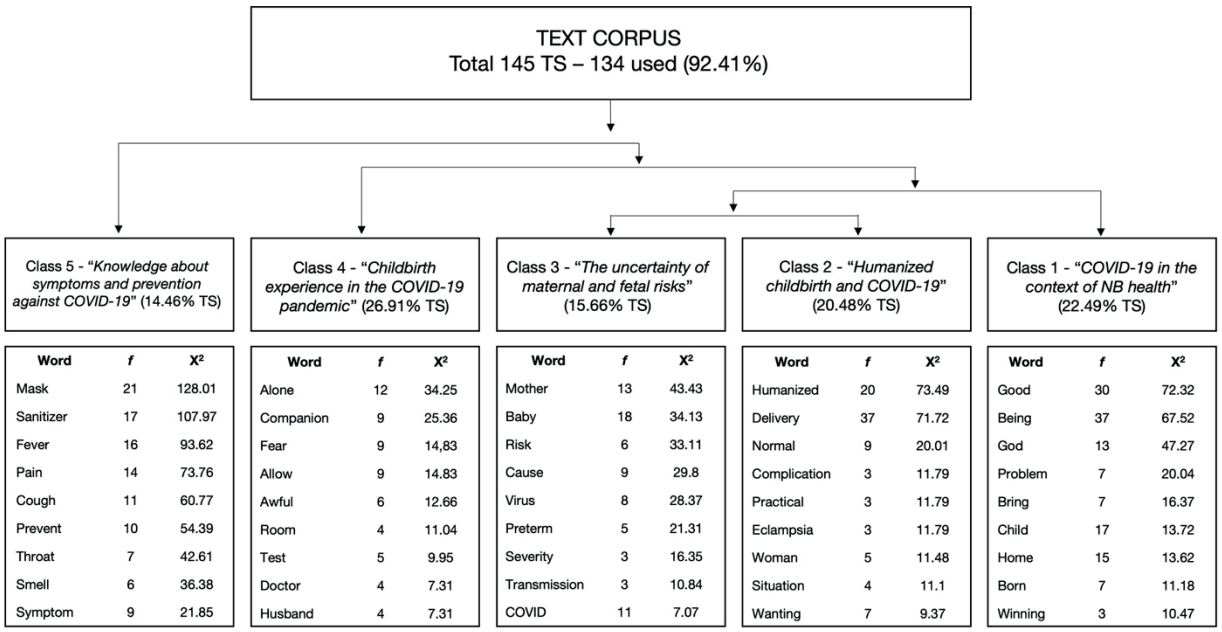


Note. NB = Newborn.

To better illustrate the words of the textual corpus in their classes, a class diagram was organized with examples of words from each class, evaluated by the chi-square test (X^2). It shows the works that present similar meanings to each other and different meanings from the other classes. Thus, Figure 2 presents each class, operationalized and exemplified, generated through the Descending Hierarchical Classification analysis.

Figure 2

Class Diagram



Word	*f*	X²
Mask	21	128.01
Sanitizer	17	107.97
Fever	16	93.62
Pain	14	73.76
Cough	11	60.77
Prevent	10	54.39
Throat	7	42.61
Smell	6	36.38
Symptom	9	21.85

Word	*f*	X²
Alone	12	34.25
Companion	9	25.36
Fear	9	14,83
Allow	9	14.83
Awful	6	12.66
Room	4	11.04
Test	5	9.95
Doctor	4	7.31
Husband	4	7.31

Word	*f*	X²
Mother	13	43.43
Baby	18	34.13
Risk	6	33.11
Cause	9	29.8
Virus	8	28.37
Preterm	5	21.31
Severity	3	16.35
Transmission	3	10.84
COVID	11	7.07

Word	*f*	X²
Humanized	20	73.49
Delivery	37	71.72
Normal	9	20.01
Complication	3	11.79
Practical	3	11.79
Eclampsia	3	11.79
Woman	5	11.48
Situation	4	11.1
Wanting	7	9.37

Word	*f*	X²
Good	30	72.32
Being	37	67.52
God	13	47.27
Problem	7	20.04
Bring	7	16.37
Child	17	13.72
Home	15	13.62
Born	7	11.18
Winning	3	10.47

Note. TS = Text segment; NB = Newborn; *f* = Frequency; X² = Chi-square.

Class 1 refers to pregnant women with COVID-19's perception of NB health and childbirth. It comprises 22.49% (*f* = 56 TS) of the total corpus analyzed.

Among the statements collected about the possible problems caused to the baby and other perceived experiences, the following stand out:

"All I know is that I thank God my daughter was born well and we are together now at home, I can't say what the problems are" (I4)

"Thank God my baby was okay . . . Well, thank God, and I'm delighted to be with my daughter, and thank God she's healthy (I9)"

"He was born tired and underweight and with a heart murmur, but I don't know if it was because of COVID . . . I feel good because thank God I have my baby" (I11)

"I'm fine, thanks to God, I'm at home with my son and husband, enjoying every moment and always thanking God for having overcome COVID" (I14)

Class 2 addresses pregnant women's opinions about humanized childbirth during the COVID-19 pandemic. It comprises 20.48% (*f* = 51 TS) of the total corpus analyzed and is composed of words and radicals in the range between x^2 = 3.98 (Sac) and x^2 = 73.49 (Humanized).

Among the statements collected were the following:

"My opinion about humanized childbirth is that women who can have a normal delivery do it this way because it is healthier for both mother and baby, but with COVID-19, this virus is very dangerous, it does not choose people because anyone can be infected" (I5)

"Humanized childbirth: I think it's great because it's natural, the baby will be born at its own time, and the mother's recovery is fast" (I8)

"Humanized childbirth seems to be great, but I prefer normal childbirth because it is more usual, and about COVID, I want it to be over soon because it is taking many lives" (I12)

"In prenatal care, they talked about humanized childbirth, but I never participated in the pregnant women's groups. With this pandemic, there was none" (I18)

Class 3 refers to uncertainties about the severity and transmission of the virus between mother and baby. It comprises 15.66% (f = 39 TS) of the total corpus analyzed and is composed of words and radicals in the range between x^2 = 5.98 (Depend) and x^2 = 43.34 (Mother).

Among the statements collected were the following:

"Impossible because the virus kills the baby and the mother very quickly . . . because where I live, there was no COVID ward" (I15)

"If it were me, I wouldn't want to! Because I had a high-risk pregnancy and a preterm baby, and here in Maracanaú, there was no structure to welcome her" (I1)

"Depending on the severity of this disease, of this virus, I think the baby too because the pregnancy creates the baby right, so everything passes to them, right, with a disease this severe right" (I16).

Class 4 addresses the experiences and feelings lived by the respondents about their delivery and stay in the hospital unit and having their rights and childbirth preferences respected even during the COVID-19 pandemic. It comprises 26.91% (f = 67 ST) of the total corpus analyzed and is composed of words and radicals in the range between x^2 = 4.78 (Show) and x^2 = 34.25 (Alone).

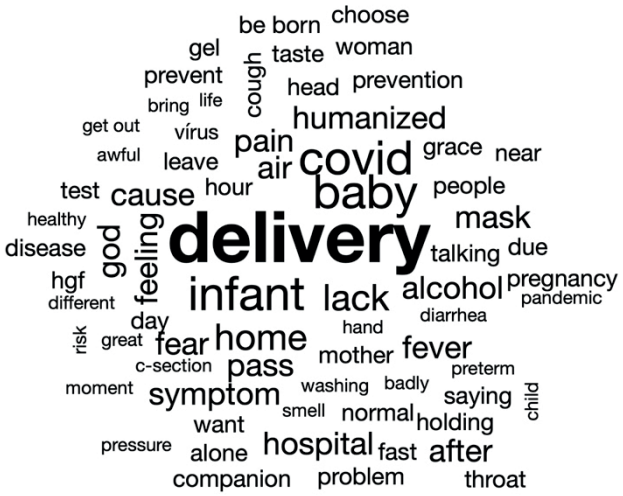
The statements of the pregnant women interviewed point to several negative experiences during childbirth:

"I felt awful because I was alone during my stay. When I got home, people didn't even look at me, and that's

very annoying" (I1)
"Yes, they didn't let me hold my son, they just showed him to me and left me alone in the room, and they only let me hold the child two days later. Very annoying" (I2).
"Yes, because they only showed my daughter to me from afar and left me alone in the room, I couldn't even have my husband with me" (I5)
"Of course, I was alone in the delivery room, and I only saw my baby when I was discharged, I spent 16 days without even being able to see her" (I20)
"I felt I had no autonomy, I had no choice, my big dream was to have normal and humanized childbirth, so much so that I researched a lot on the internet about it, you know." (I21)
In Class 5, the knowledge of pregnant women about COVID-19 symptoms and prevention was investigated. It comprises 14.46% (f = 36 FS) of the total corpus analyzed and is composed of words and radicals in the range between x^2 = 4.15 (Water) and x^2 = 128.01 (Mask). All respondents knew about COVID-19 symptoms and prevention measures, reflected by the search for information in a social and media environment. Among the statements collected were the following:
"It is fever, headache, pain, shortness of breath. Prevention is not leaving the house, wearing a mask, and applying hand sanitizer" (I10)
"The symptoms are nasal congestion, cough, high fever, and shortness of breath, and to prevent it, apply hand sanitizer and wash your hands and wear a mask, avoiding crowds" (I9)
"Symptoms are fever, sore throat, stuffy nose, cough, shortness of breath. Prevention is to use a mask and hand sanitizer" (I18)
"And dry cough, shortness of breath, fever, stuffy nose, for prevention, always use a mask and hand sanitizer" (I12).
Then, the word cloud obtained through the complete speeches of the participants was analyzed. The most evoked words were: "Childbirth" (*f* = 75); "Child" (*f* = 42); "Baby" (*f* = 42); "COVID" (*f* = 39); "Home" (*f* = 34); "Lack" (*f* = 30); "Feeling" (*f* = 27); "Air" (*f* = 26); "Symptom" (*f* = 26); "Mask" (*f* = 23); "Humanized" (*f* = 23); "Pain" (*f* = 22); "Mother" (*f* = 19), and "Fear" (*f* = 18; Figure 3).

Figure 3

Word Cloud



Discussion

The PHPN, based on scientific evidence, systematizes and promotes recommendations on good practices that can be implemented in Brazilian maternity hospitals to guarantee women's rights during childbirth procedures (Estrela et al., 2020).
Humanized childbirth care brings a new look at pregnant and puerperal women's care based on attentive listening and a sensitive connection between mother and child. Above all, pregnancy and childbirth care should be conducted as a physiological process through the humanized action of qualified obstetric nurses and specialized care teams (Possati et al., 2017).
The scientific community has widely discussed the benefits of humanized childbirth, and the practice is preferred by pregnant women interviewed in this study. This choice is primarily due to the fact that the pregnant woman is the protagonist of the birth of her child. This role occurs when health professionals inform all the positive aspects and risks of surgery and are available to answer all possible questions (Barros et al., 2015).
Notably, some women were unaware of the concept of humanized childbirth, evidenced, for example, in the conceptual differences between normal childbirth and cesarean section, suggesting that there is no adequate guidance to pregnant women by health professionals on humanized childbirth regardless of the route, something that should be explained because it is the mother's right and relates to her dignity.

Among the many basic actions in humanized care, the promotion of immediate contact between mother and child stands out, promoting the necessary effective encounter between the binomial and stimulating breastfeeding (Cruz & Dos Santos, 2021). However, the distance imposed on the mother can have repercussions on the nutritional quality of the NB, on the maturational stages of growth and development, and contribute to an increase in neonatal and infant mortality (Pinheiro et al., 2022).
According to the reports of pregnant women, there were cases of preterm births in pregnant women with COVID-19, in which the NB presented respiratory distress syndrome due to possible virus transmission and lung immaturity. It should be noted that epidemiological surveillance in Brazil observes an increase in the number of preterm births and cesarean sections in pregnant women infected with COVID-19 and has warned of cases of maternal deaths due to cardiopulmonary complications or multiple organ failure (Trapani Júnior et al., 2020).
In this context, some authors have pointed out that pregnant women severely infected with COVID-19, when associated with comorbidity, are more prone to emergency cesarean section deliveries or preterm delivery, significantly increasing the risk of maternal and neonatal death (Li et al., 2020; Boaventura et al., 2021).
Among the most common fears of these pregnant women are their uncertainties during pregnancy and at the time of delivery and the possibility of vertical virus transmission. In this sense, Hoffmann et al. (2020) comment that studies are still inconclusive and that some authors defend the possibility of transmission between the binomial and others who affirm the impossibility of breaking the placental barrier.
In addition to the words "childbirth," "child," and "COVID," the Word Cloud shows the words "feeling," "lack," "pain," and "fear," corroborating the findings of the Descending Hierarchical Classification that highlight the need for greater care humanization, the lack of knowledge of pregnant women, and the uncertainties of maternal and fetal risks.
The interviewees faithfully talked about the fear of complications with their pregnancy and the risk of severe harm to their baby. In addition, many reported that they had no freedom to choose their delivery preferences and were subjected to cesarean deliveries and mother-child separation.
Unfortunately, some maternity hospitals and hospitals have taken away the mother's essential and healthy rights, isolating her from her partner at the time of delivery and postpartum. A right guaranteed in Brazil by Law No. 11.108/2005, known as the Companion Law, was disrespected in the pandemic scenario (Li et al., 2020).
Even considering the uncertainties and insecurities felt about the pandemic in this period of investigation, there is a severe violation of the rights of these women who are already isolated and vulnerable, whether biologically or emotionally, a situation further aggravated by the impossibility of being close to their baby and their partner.
Therefore, to promote maternal health and reduce neonatal morbidity and mortality, it is essential to map the care, educational, and/or managerial actions developed by nurses and their teams during and after the COVID-19 pandemic (Góes et al., 2020).
It is crucial to implement health education strategies during prenatal care to inform pregnant women about the physiology of the delivery routes, including their benefits and possible complications, and raise awareness about humanized childbirth and women's rights.

Conclusion

Although studies on COVID-19 in pregnant women are still scarce and inconclusive, the little existing evidence indicates that pregnant women have a higher risk of being more severely ill and are predisposed to pregnancy complications, being associated with an increase in cesarean deliveries and preterm births when compared to non-infected pregnant women.
From this perspective, in the face of these uncertainties, humanized childbirth has been neglected due to the fear and doubts related to modes of mother-child transmission. Above all, the right of pregnant women to have autonomy in their delivery, their partner's presence, skin-to-skin contact, and breastfeeding was impeded by the institutions, which caused a significant decline in the emotional condition of these women.
Thus, the implementation of good delivery and childbirth care practices for pregnant women with COVID-19 has become a more challenging goal because the non-applicability of humanized practices adds to the ever-present challenges faced by health professionals in caring for their patients during the pandemic, causing psychological trauma and affecting the health and well-being of the mother and the baby.
Many women were unaware of this good practices policy because they were unaware of how professionals should or should not act. Health professionals should implement health education strategies on national policies that institutionalize humanized prenatal and childbirth care, thus allowing pregnant women to consider their rights and claim adequate childbirth care practices.

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