v. 3, n. 64, 2023

International Journal of Health Science

# ANALYSIS OF ANXIETY AND EXPECTATIONS OF PREGNANT WOMEN CONSIDERING THE PERFORMANCE OF PRENATAL AND DELIVERY DURING THE COVID-19 PANDEMIC

***Tânia Regina Padovani***
Doctor. Specialist in Gynecology and Obstetrics. Professor of undergraduate and residency programs at the Faculty of Medical and Health Sciences at: Pontifícia Universidade Católica de São Paulo
Sorocaba (SP) – Brazil
https://orcid.org/0000-0002-6243-7959

***Luisa Giannattasio Decoussau***
Medical Student at: Faculdade de Ciências Médicas e da Saúde da Pontifícia Universidade Católica de São Paulo
Sorocaba (SP) – Brazil
http://lattes.cnpq.br/8650861623150535

***Rafaela Magri Andolfato***
Medical Student at: Faculdade de Ciências Médicas e da Saúde da Pontifícia Universidade Católica de São Paulo
Sorocaba (SP) – Brazil
http://lattes.cnpq.br/3714703688856484

**Abstract:** Pregnancy is a time of hormonal, physical and psychological changes that affect the woman's body. From the discovery of pregnancy, it is necessary for her to look for a health system to start prenatal care, which is important for the early diagnosis of pathologies that can cause some type of gestational intercurrence. In the scenario of the COVID-19 pandemic, the WHO classified pregnant women as a risk group for the disease. The emotional side of pregnant women can also be affected, and it is important for health professionals to pay attention to their anxieties and fears. Pandemics are sources of uncertainty and anguish that affect people's psychology, so it is necessary to be more attentive to the emotional side to avoid complications during prenatal care and childbirth. This way, three questionnaires were applied in the Emergency Care for Pregnant Women and Maternity Hospital Santa Lucinda (HSL) that concern the sociodemographic and gestational data of the patients, the anxieties and expectations of the pregnant women in relation to prenatal care and childbirth, and prevention of COVID-19, in order to reinforce the guidelines of the Ministry of Health and its need at the present time. We know that the impacts of the COVID-19 pandemic are still little known, so we intend to clarify the psychological and physical impacts caused by this scenario. We hope that with this analysis, it will be possible to recognize whether there is a connection between the COVID-19 pandemic and the expectations of pregnant women in this period, related to the search for medical services for follow-up and possible complications.
**Keywords:** pregnant women, COVID-19, prenatal care, delivery, instructions

## INTRODUCTION

Pregnancy is the moment before childbirth, characterized by hormonal, physical and psychological changes that affect the woman's body [1]. From the moment the pregnancy is discovered, it is necessary for her to look for a health system to start prenatal care.

Efficient prenatal care allows for greater contact between the pregnant woman and health professionals, contributing to self-care and freedom of choice [2]. During this moment, the woman is placed in front of several questions and choices that may influence her pregnancy to a greater or lesser extent. These decisions also carry great weight when the world is experiencing a pandemic, as has been happening since 2019, to a lesser extent in 2022, due to the infection of a new strain of the Coronavirus called SARS-Cov-2[3].

This disease leads to the occurrence of the so-called Severe Acute Respiratory Syndrome (SARS) triggered by lesions in the alveoli that cause inflammation and accumulation of fluids in the lungs, reducing diffusion and putting the patient in intubation, at risk of life [4 ]. With this, the Ministry of Health advised that pregnant women and mothers up to the 14th postpartum day must be considered a risk group for COVID-19. [5].

Therefore, it is indisputable that the COVID-19 pandemic has changed the ways in which health professionals must act in terms of caring for pregnant women, both physically and emotionally, and even more when it comes to guiding them on the means of preventing contagion. Thus, we aimed to analyze the concerns and expectations of pregnant women in relation to their prenatal and childbirth care, reinforcing the necessary care to avoid contamination with COVID-19.

## OBJECTIVES

The main objective of the research was to relate the influence of the pandemic on the psychological of pregnant women, over 18 years old, with the demand for health systems to monitor the pregnancy and expectations for childbirth. As secondary objectives, data were collected on the care that this group took during the pandemic and to reinforce the guidelines recommended by the Ministry of Health regarding care for the prevention of COVID-19.

## METHODOLOGY

The study was cross-sectional observational and analyzed 242 pregnant women who passed through the Emergency Room and/or the Maternity Hospital of Santa Lucinda Hospital. It took place between Jul/2021 and Aug/2022, with due approval from the Research Ethics Committee (CEP) of FCMS-PUC/SP (Opinion No. 4,674,575). After the acceptance of the patient, over 18 years old, the TCLE was signed, also approved by the CEP.

**Application of questionnaires** - The developed questionnaire contained three parts, with a total of 30 questions, covering: identification (name, age, origin, marital status, social support, profession, situation and type of work and monthly income), gestational data (previous pregnancies and numbers, current pregnancy planning, contraceptive methods, comorbidities, gestational age), feelings about the current pregnancy and the pandemic (feelings about the pregnancy, prenatal care, prenatal consultations, fear of having prenatal care, change on expectations regarding childbirth due to the pandemic) and on the COVID-19 pandemic (prevention methods, whether or not you had COVID-19, symptoms and fear of seeking help). The pregnant women answered the questionnaire before or after consultation with the doctor in charge.

**Obtaining the absolute and relative frequency (%) of the researched variables** - At the end of each month of data collection, the data were entered into an Excel spreadsheet and, using the program's counting tool, it was possible to obtain the frequencies of the variables in the studied population, that is, the prevalence of each variable in the patients. With that, the following variables were analyzed: age group, social support, situation and type of work, monthly income, pregnancies, pregnancy planning, use of contraceptives, comorbidities, prenatal care, feelings about the current pregnancy, feeling of fear of performing prenatal care, expectations regarding childbirth, method of prevention for COVID-19, positivity for COVID-19 infection, prevalent signs and symptoms, and fear of seeking help from the health system when positive.

## RESULTS AND DISCUSSION

The study population (n=242) was analyzed according to age, divided into 18-24 years (42%), 25-30 years (30%), 31-40 years (26%) and >40 years (2%). The higher prevalence of pregnant women between 18 and 40 years old (98%) is reassuring since they do not fit the Ministry of Health's individual high-risk pregnancy criteria. And, even with the presence of pregnant women over 40 years old, they were few close to the whole [5].

Regarding the presence of social support, 241 pregnant women reported having support from family or partner. According to the literature, the social network is defined as a group of important relationships for the pregnant woman, including different cycles that influence well-being, self-esteem, assigning a new situation and feeling part of a group. This reinforces a lower risk of presenting psychological disorders such as postpartum depression and fewer symptoms of stress and anxiety during pregnancy and

after birth [6].

As for the work situation, 69% of the pregnant women were employed and 31% were unemployed. Among the female employees, 95% carried out their work in person. When they are employed, pregnant women are more exposed to COVID-19, due to its transmission being by direct contact with an infected person or contaminated objects and surfaces, by respiratory droplets expelled by an infected person or by aerosols containing the virus [7].

With regard to monthly income, most pregnant women stated that they receive from 1 to 3 minimum wages (65%), that is, between R$1212.00 and R$3636.00, according to the recommended minimum wage by the Public Ministry. The total average monthly household expense in Brazil, in 2018, was calculated at R$4649.03. This data shows us how much the majority of pregnant women do not reach the average amount spent by families in Brazil to maintain a dignified life [8].

Regarding gestational data, 65% are multiparous and 35% are primiparous. The higher prevalence of multigestas could be reassuring regarding the psychological influences that patients may experience during this period. However, according to the literature, both are equally likely to develop, for example, anxiety, discerning the reason that leads them to this disorder. Primigravidae tend to be anxious due to inexperience, while multiparous women experience a "silenced violence", in which they feel pressured not to make mistakes, feel angry or sad [9].

Pregnancy was planned in only 40% of cases, with 60% unplanned. The literature reinforces that, when unplanned, it can have a considerable impact on the provision of prenatal care, guidance on breastfeeding, nutritional status, an increase in cases of anxiety and depression, and an increase in violence against women due to lack of socioeconomic preparation of the pregnant woman and her support network [10].

Among all pregnant women, 66% did not use any contraceptives and 34% used contraceptive methods, the most cited being condoms, oral contraceptives and quarterly injection. According to the Ministry of Health, the bill that regulates family planning ensures that in all instances of the Unified Health System, women and their partners have assistance with conception and contraception. Therefore, there is no difficulty in accessing contraceptive methods and their use or not is up to the patient and her partner [11].

As for the presence of comorbidities, 71% of the 242 pregnant women did not have any and 29% claimed to have them, as can be seen in more detail in Table 2. The literature reinforces that the clinical conditions prior to pregnancy that classify the pregnant woman as at risk are: hypertension chronic arterial hypertension, diabetes mellitus prior to pregnancy, thyroid disease, etc. Even though this is a low percentage, it is important to classify them, since the Ministry of Health also recommended that all pregnant women are a risk group for COVID-19, placing those with some comorbidity twice in this group [5].

| Comorbidity | Number of pregnant women | % of pregnant women |
|---|---|---|
| Arterial hypertension | 29 | 34% |
| Diabetes. | 23 | 27% |
| Hypothyroidism | 16 | 19% |
| Anemia | 5 | 6% |
| Others (e.g. asthma, heart disease…) | 12 | 14% |

Table 2 - Percentage of each comorbidity presented by the 71 pregnant women (29%)

When analyzing data on the feelings of pregnant women in relation to the current pregnancy, the vast majority cited "joy as the main sensation (85%), followed by fulfilled (38%) and worried (37%). The

gestational period can cause anxiety, sadness and numerous worries, even more so when it comes to unplanned pregnancies, as mentioned above. With this, it is necessary for the health team to be ready to act in the reception of these women and their anxieties [12].

Regarding prenatal care, only 4% claimed not to have started it, because the pregnancy was discovered at the time the questionnaire was applied. Therefore, the majority, 96%, started prenatal consultations. Among the number of consultations performed, the average was 6.4 consultations and the median were 7 consultations. Considering the minimum number recommended by the Ministry of Health, of 6 consultations, and the fact that 31% of pregnant women were still in the 3rd trimester of pregnancy, this means that most pregnant women received adequate prenatal care, without prejudice due to the pandemic of COVID-19. This is reinforced when, even though they are afraid to attend the UBS/Polyclinic/Hospital due to the pandemic, 18% of pregnant women, mainly in prenatal care (66%), followed by hospital emergencies such as bleeding or nausea (36%), they continued to receive prenatal care and attend health systems [5].

Regarding the changes that the pandemic may have brought about in the expectations of childbirth, 61% of the pregnant women answered that there was no change and 39% answered that they had a change. Among the main alterations cited, the most prevalent was concern (53%), as shown in table 3. The change in perspective regarding childbirth is something understandable, even more so as concern is the biggest one, because the literature demonstrates that pregnant women with COVID-19, especially in the 3rd trimester of pregnancy, are at increased risk of pre-eclampsia, severe infections, ICU admissions, maternal mortality, premature birth, higher rate of severe neonatal morbidity, perinatal mortality, bringing harm to themselves and for the conceptus [5].

| Feeling | Number of pregnant women (out of 95) | % of pregnant women (out of 95) |
|---|---|---|
| Anxiety | 18 | 19% |
| Insecurity | 41 | 43% |
| Concern | 50 | 53% |
| Fear | 44 | 46% |
| Others | 4 | 4% |

Table 3 - Percentage of feelings most cited by pregnant women in relation to expectations with childbirth in the period of the COVID-19 pandemic

When it comes to the prevention of COVID-19, no pregnant woman claimed not to use methods, with the majority confirming that they use masks, gel alcohol and have received the vaccine, at least the first two doses, as shown in table 4. The literature reinforces that the use of masks of any kind and constant hand washing can substantially decrease the transmission and infection of COVID-19. In addition, the Ministry of Health recommends vaccinating pregnant women with or without pre-existing comorbidities, depending on the availability of vaccines in the city and state, as there was a significant increase in maternal mortality in 2021 (11.5 %, against 5.5% in 2020) [5].

| Prevention methods | Number of pregnant women | % of pregnant women |
|---|---|---|
| Alcohol gel | 202 | 83% |
| Mask | 237 | 98% |
| Wash your hands regularly | 58 | 24% |
| Social isolation | 44 | 18% |
| Vaccine | 224 | 93% |
| None | 0 | 0% |
| Others | 3 | 1% |

Table 4 - Percentage of prevention methods used by pregnant women

Of the pregnant women questioned, 88 (36%) claimed to have had COVID-19 during or before pregnancy, while 154 (64%) denied it. For those who claimed to have been infected, the most frequent symptoms are described in table 5. The literature does not confirm vertical transmission, however, for those who had COVID-19 during pregnancy, they were at greater risk of complications such as premature rupture of ovular membranes, pre-eclampsia, gestational diabetes, hypertensive disease specific to pregnancy; in addition to complications for the fetus such as pneumonia, low birth weight, perinatal asphyxia, perinatal death, skin eruptions and disseminated vascular coagulation [14].

| Symptoms | Number of pregnant women (out of 88) | % of pregnant women (out of 88) |
|---|---|---|
| Fever | 54 | 61% |
| Sore throat | 28 | 32% |
| Cough | 44 | 50% |
| Shortness of breathe | 39 | 44% |
| Tiredness | 42 | 48% |
| Diarrhea | 13 | 15% |
| Headache | 47 | 53% |
| Conjunctivitis | 0 | 0% |
| Loss of taste/smell | 39 | 44% |
| Chest pain/pressure | 7 | 8% |
| None | 4 | 5% |
| Others | 34 | 39% |

Table 5 - Percentage of symptoms presented by pregnant women who tested positive for COVID-19

Furthermore, when asked about seeking or not seeking help from health services after confirming the infection, 16% claimed to be afraid and 84% claimed not to be afraid. The Ministry of Health reinforces that it is extremely important that pregnant women go after health services to guarantee prenatal care even if they are contaminated, guidance on isolation for 10 days and hospitalization, if necessary, with due care so as not to worsen the condition. clinical picture [5].

## CONCLUSION

The survey showed that a considerable portion of pregnant women had their anxieties and expectations changed in relation to prenatal care and childbirth, due to the influence of the pandemic. Taking into consideration, the data collected, we can infer that most pregnant women, despite being afraid and apprehensive about the COVID pandemic, continued to work and received adequate prenatal care, even if they were more exposed to the virus. Therefore, it is essential that the pregnant woman understands the need for prenatal care to monitor the health of the fetus, despite the concern and insecurity she feels during the pandemic period.

## DEVELOPMENT AGENCY

The research received PIBIC-CEPE approval with funding.

## REFERENCES

[1] LEITE, M.G.; RODRIGUES, D.P.; ANTONIELLY, A.; SOUSA, S.; MELO, L.P.T.; FIALHO, A.V.M. Sentimentos advindos da maternidade: revelações de um grupo de gestantes. Psicol. Estud. v. 19, n. 1, p. 115-124, 2014.

[2] COSTA, Christina Souto Cavalcante; VILA, Vanessa de Carvalho; RODRIGUES, Flávia Melo; MARTINS, Cleusa Alves; PINHO, Lícia Maria Oliveira. Características do atendimento pré-natal na Rede Básica de Saúde. Revista Eletrônica de Enfermagem, [S.L.], v. 15, n. 2, p. 516-22, 30 jun. 2013. Universidade Federal de Goias. http://dx.doi.org/10.5216/ree.v15i2.15635.

[3] SOUZA, Diego de Oliveira. A pandemia de COVID-19 para além das Ciências da Saúde: reflexões sobre sua determinação social. Ciência & Saúde Coletiva, [S.L.], v. 25, n. 1, p. 2469-2477, jun. 2020. FapUNIFESP (SciELO). http://dx.doi.org/10.1590/1413-81232020256.1.11532020.

[4] ARAÚJO, L. S.; SHIOMATSU, G. Y.; NINOMIYA, V. Y.; CARVALHO, R. T. Você sabe o que é síndrome respiratória aguda? **Secretária do Estado de Saúde de Minas Gerais - Coronavírus**, 2020 (https://coronavirus.saude.mg.gov.br/blog/75-o-que-e-sindrome-respiratoria-aguda-grave)

[5] BRASIL. Ministério da Saúde. Secretaria de Atenção Primária à Saúde. Departamento de Ações Programáticas e Estratégicas. Manual de recomendações para a assistência à gestante e puérpera frente à pandemia de Covid-19 [recurso eletrônico] / Ministério da Saúde, Secretaria de Atenção Primária à Saúde, Departamento de Ações Programáticas e Estratégicas. – 2. ed. – Brasília: Ministério da Saúde, 2021. 84.

[6] MAFFEI B.; MENEZES M.; CREPALDI M.A. Rede social significativa no processo gestacional: uma revisão integrativa. Universidade Federal de Santa Catarina, Florianópolis/SC. Rev. SBPH vol.22 no.1 São Paulo jan./jun. 2019

[7] BRASIL, Ministério da Saúde. Secretaria de Políticas de Saúde. Área Técnica de Saúde da Mulher. Assistência em Planejamento Familiar: Manual Técnico/Secretaria de Políticas de Saúde, Área Técnica de Saúde da Mulher – 4a edição – Brasília: Ministério da Saúde, 2002

[4] BRASIL. Instituto Brasileiro de Geografia e Estatística. Pesquisa de orçamentos familiares 2017-2018: primeiros resultados / IBGE, Coordenação de Trabalho e Rendimento. - Rio de Janeiro, 2019.

[5] SCHIAVO, Rafaela A.; RODRIGUES, Olga Maria Piiazetim R.; PEROSA, Gimol B. Variáveis associadas à ansiedade gestacional em primigestas e multigestas. Temas em Psicologia, [S.L.], v. 26, n. 4, p. 2091-2104, 2018. Associacao Brasileira de Psicologia. http://dx.doi.org/10.9788/tp2018.4-14pt.

[8] ARAÚJO A.B. Gravidez não planejada e suas implicações: intervenções em atenção primária à saúde. Curso de Especialização Saúde da Família, Universidade Federal de Minas Gerais, Montes Claros, 2017.

[9] BRASIL, Ministério da Saúde. Secretaria de Políticas de Saúde. Área Técnica de Saúde da Mulher. Assistência em Planejamento Familiar: Manual Técnico/Secretaria de Políticas de Saúde, Área Técnica de Saúde da Mulher – 4a edição – Brasília: Ministério da Saúde, 2002

[10] VELEDA A.A; DA SILVA A.P.S.S.; DI LEONE P. Mulheres e Covid-19: reprodução, gestação, parto e puerpério. Porto Alegre: Ed. da UFCSPA, 2021.

[11] SOUZA, Hayanna Cândida Carvalho de; MATOS, Mariana Moscoso Rêgo de; COSTA, Ricardo Alves; LIMA, Maria Adriely Cunha; CARDOSO, Alexandre Silva; BEZERRA, Mauro Muniz. COVID-19 e gestação: manifestações clínicas, alterações laboratoriais e desfechos maternos, uma revisão sistemática de literatura/covid-19 and pregnancy. Brazilian Journal Of Health Review, [S.L.], v. 3, n. 6, p. 15901-15918, 2020. Brazilian Journal of Health Review. http://dx.doi.org/10.34119/bjhrv3n6-023.

[12] ESTRELA, Fernanda Matheus; SILVA, Keile Kemyly Assis da; CRUZ, Moniky Araújo da; GOMES, Nadirlene Pereira. Gestantes no contexto da pandemia da Covid-19: reflexões e desafios. Physis: Revista de Saúde Coletiva, [S.L.], v. 30, n. 2, 2020. FapUNIFESP (SciELO). http://dx.doi.org/10.1590/s0103-73312020300215.

[13] AMORIM, Melania Maria Ramos; SOUZA, Alex Sandro Rolland; MELO, Adriana Suely de Oliveira; DELGADO, Alexandre Magno; FLORêNCIO, Anna Catharina Magliano Carneiro da Cunha; OLIVEIRA, Thaise Villarim de; LIRA, Lara Caline Santos; SALES, Lucas Martins dos Santos; SOUZA, Gabriela Albuquerque; MELO, Brena Carvalho Pinto de. COVID-19 and Pregnancy. Revista Brasileira de Saúde Materno Infantil, [S.L.], v. 21, n. 2, p. 337-353, 2021. FapUNIFESP (SciELO). http://dx.doi.org/10.1590/1806-9304202100s200002.

[14] LOPES G.J.; LUZ A.G.; VALLE C.C.R. Protocolo de manejo clínico de gestantes com suspeita ou confirmação de COVID-19. Hospital da Mulher Prof. Dr. José Aristodemo Pinotti (CAISM/UNICAMP), 2020.

[15] GIRARDI J.M.; ANDRADE A.M.; RAMOS M.C.; OLIVEIRA L.E.S.; PEREIRA D.C.R.; SILVA E.T. Uso de máscaras para a redução da transmissão da COVID-19: revisão integrativa. Com. Ciências Saúde. 2021; 32(1):17-30