

Thoughts, experiences, and emotions of pregnant women during COVID-19 pandemic: A qualitative study

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ABSTRACT

Objective: Pregnant women are one of the most vulnerable groups affected negatively by the COVID-19 pandemic process. It was aimed to evaluate the thoughts, feelings, problems, individual experiences of pregnant women about pandemic.

Material and Methods: For the qualitative type of study, the participants were selected among pregnant women aged 18–45 who came to the Obstetrics and Gynecology Polyclinic of a state hospital in İstanbul. Interviews were recorded, if the participant gave consent. Written notes were taken when recording was not allowed. The data collection process was terminated with 12 participants with the content saturation.

Results: The minimum age of the 12 participants was 23, and the maximum age was 40. Six different themes were created: Emotional Status of Being Aware of Coronavirus, Information Source About Coronavirus, Pregnancy and Pandemics, Precautions/COVID-19 Vaccination, Disease Process, and Social Relationships in Pandemic. Almost all of the participants mentioned that their physical and mental health were negatively affected by the pandemic. Most of the participants talked about the anxiety of getting the disease and its possible effects on themselves and their babies.

Conclusion: Pandemic had negative effects on both physical and mental health for participants. Interventions are needed for pregnant women for improvement of their health.

Keywords: COVID-19, pandemic, pregnant women.

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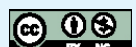
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INTRODUCTION

It is predictable that individuals in the high-risk group for COVID-19 infection experience anxiety and fear.^[1] Pregnant women are among the important groups affected by COVID-19 pandemic process. Physiological changes in respiratory, cardiovascular, coagulation, and immune systems and hormonal differences can leave pregnant women vulnerable to infectious agents and serious complications may occur.^[2]

The risk of complications is increased both in pregnant woman and baby when pregnant women infected with COVID-19.^[3] According to the literature, pregnant women infected with COVID-19 in the first trimester, experience miscarriage.^[4] In addition, case reports from different countries, stated that pregnant women need mechanical ventilation due to COVID-19 infection and have a higher risk of death.^[5,6] According to data of the Centers for Disease Control and Prevention pregnant women had 5 times increased risk of admission to an intensive care unit compared to non-pregnant women.^[3] It is thought that this situation may cause serious concerns and stress about being infected with the COVID-19 virus in pregnant women during the pandemic process.

Pregnant women are a population vulnerable to mental health problems such as anxiety, stress, and depression. Many biological, psychological, and social factors related to pregnancy process can affect this situation.^[7] With the pandemic period, the measures taken to prevent the spread of the virus, increased unemployment, and partner violence can cause an increase in maternal stress and anxiety.^[8] The possibility of serious infection also worries pregnant women about being infected.^[9] According to a meta-analysis investigating the prevalence of anxiety and depression in pregnant women during the COVID-19 period, anxiety was observed in 18.7% of pregnant women and depression in 25.1%.^[10] In the same study, the percentage of anxiety in pregnant women in Turkey was reported as 35.4%. Another study reported higher prevalences for anxiety and depression among pregnant women, 56.6% of the pregnant women showed anxiety symptoms and 37% of them showed symptoms of depression.^[11]

Anxiety and stress during pregnancy have negative effects both on the fetus and the mother.^[12] According to previous studies, complications such as pre-eclampsia, gestational diabetes, preterm birth, and low birth weight have been encountered due to maternal anxiety and stress.^[13,14] It is very important to understand the emotional changes experienced by pregnant women during the pandemic period, their experiences, feelings, and thoughts in this process, to guide preventive interventions regarding the health of pregnant women and their babies. In this context, it is aimed to evaluate the thoughts, feelings, problems, and individual experiences of pregnant women about the COVID-19 pandemic with the in-depth interview technique in this study.

MATERIAL AND METHODS

This research is a qualitative type of study. Participants were selected among pregnant women between the ages of 18 and 45 who came to the Gynecology and Obstetrics outpatient clinic of a tertiary state hospital in Istanbul in November–December 2021. Pregnant women who waited for their appointment in the Gynecology and Obstetrics outpatient clinic and agreed to participate in the study were included in the study as participants. The data were collected through in-depth

interviews by telephone with the participants. Informed consent form was read to the participants and their consent was obtained. After the consent process, sociodemographic data were asked and the effect of the COVID-19 pandemic on the participant's pregnancy process was investigated using a semi-structured questionnaire created by literature review. Questions were about the emotional status experienced by pregnant women at the beginning of the COVID-19 pandemic, the sources of information about the pandemic, the effects of the COVID-19 virus on the health and access to health services of pregnant women, COVID-19 precautions, vaccinations, and social relationships during the pandemic. Each interview lasted a minimum of 10 and a maximum of 22 min. If the participant gave consent, the interviews were recorded with a tape recorder. Audio recordings were used anonymously in the evaluation of the study and were never shared with others. Written notes were taken when registration was not permitted. With the saturation of the answers in terms of content, the data collection process was terminated with 12 participants. The interviews were transcribed verbatim. Data were read separately by four researchers and analyzed with thematic method; themes, sub-themes and codes were created. In the presentation of the findings obtained, participant statements were included in the form of direct quotations.

Ethics committee approval was obtained from the ethics committee of the studied university (date: October 08, 2021, decision no=09.2021.1099). Institutional permissions have been obtained from the hospital where the research was conducted and T.C. Ministry of Health.

RESULTS

In the study, completed with a total of 12 participants, the median interview time was 15 (10–22) min. The median age was 27 years (23–40). Data on sociodemographic characteristics are shown in Table 1.

As a result of the analysis, six different themes were created: Emotional Status of Being Aware of Coronavirus, Information Source About Coronavirus, Pregnancy and Pandemics, Precautions/COVID-19 Vaccination, Disease Process, and Social Relationships in Pandemic. Themes, subthemes, and the frequency of the codes forming the subthemes are shown in Table 2.

Theme-1: Emotional Status of Being Aware of Coronavirus

Participants were asked how they felt when they heard about the first coronavirus case.

Subtheme-1: Experiencing a negative mood

Half of the participants stated that they were afraid with the pandemic coming to Türkiye.

"There was anxiety, fear, everything. My children use the bus. My husband is working in the factory. He meets people. So I was worried that something would happen to them." P6

Subtheme-2: Emotionally unaffected

Some participants stated that they were not afraid of the pandemic and were not affected emotionally.

Table 1: Sociodemographical features of participants

	Age	Education	Work status	Gestational week	Number of children
P1	27	High school	Housewife	12	2
P2	25	High school	Housewife	15	–
P3	40	University	Working	28	3
P4	27	University	Working	7	–
P5	30	Master	Working	*	1
P6	40	Primary school	Housewife	27	2
P7	28	University	Working	21	–
P8	24	High school	Housewife	25	–
P9	24	Primary school	Housewife	33	–
P10	23	High school	Housewife	35	–
P11	30	University	Working	21	–
P12	27	Master	Housewife	22	1

*: Not known exactly but in the 1st trimester.

"I didn't care at first. You know, I saw that the effects of virus were less on those who did not have any disease and had not undergone an operation, I was thinking this way. So I have no fear." P12

"...If you get coronavirus, you won't be able to use any medicine during pregnancy. I think pregnant women have a harder process. But normal people can get over it healthy by using the covid medicine..." P9

Theme-2: Information Source About Coronavirus

All of the participants stated that they followed the information about the pandemic on television. In addition, some of the participants stated that they accessed information about the coronavirus from their doctors, social media, and the internet.

"...Television, social media. For the information about preventive measures, I was researching on the social media." P11

Theme-3: Pregnancy and Pandemic

Participants were asked whether the pandemic had affected their thoughts on becoming pregnant. 5 of the participants stated that they became pregnant unplanned.

Subtheme-1: The effect of the pandemic on pregnancy desire

"...First of all, I was afraid of being a mother. Am I ready to be a mother? I was stressed when I thought about the pregnancy. Of course, pandemic conditions are difficult. We have to keep wearing masks all the time. I thought I should pay more attention to my health..." P4

Subtheme-2: Feelings about the effects of COVID-19 on the pregnancy process

While 8 of the participants thought that COVID-19 could be more severe during pregnancy, 3 stated that they had no idea about it, and 1 stated that they thought the effect would not change.

Subtheme-3: The effect of the pandemic on health in pregnancy

Almost all of the participants mentioned that their physical and mental health were negatively affected by the pandemic during pregnancy. In terms of physical health; they mentioned that they could not go out and continue their habits that required movement. In addition, most of the participants talked about the anxiety about the disease and its effects on themselves and their babies.

"Yes, it had a negative impact. I don't want to have guests in the house after my baby is born. I'm already stressing..." P2

"With such quarantines and so on, we couldn't go out. I also remained motionless. These came back to us as weight gain." P7

Subtheme-4: Pregnancy follow-up visits and utilization of health services

Participants were asked questions about pregnancy follow-up at the hospital, using online health services, and chronic disease follow-up. Three women stated that pregnancy follow-up was delayed. Of the 2 pregnant women with chronic diseases, 1 pregnant woman also mentioned that her disease follow-up was disrupted. Only one pregnant woman heard about online health services. None of the pregnant women benefited from online health services.

"I have thyroid disease. There were disruptions in the pandemic process. Willingness not to go to the hospital. I was a little delayed because of the spread of the diseases." P7

Table 2: Themes, subthemes, and frequency of subthemes

Themes	Subthemes	Frequency (code)
Emotional status of being aware of coronavirus	Experiencing a negative mood	20
	Emotionally unaffected	10
	Total	30
Information source about coronavirus	Television	12
	Social media	5
	Internet	3
	Doctors	2
	Total	22
Pregnancy and pandemic	The effect of the pandemic on pregnancy desire	13
	Feelings about the effects of COVID-19 on the pregnancy process	14
	The effect of the pandemic on health in pregnancy	38
	Pregnancy follow-up visits and utilization of health services	19
	Total	84
Precautions/COVID-19 vaccination	Hygiene/social distancing/mask	23
	Avoiding indoors/avoiding indoor gatherings	15
	COVID-19 vaccination	24
	Total	62
Disease process	Disease process	6
	Worry about herself	2
	Worry about the baby and relatives	2
	Breastfeeding behavior when infected with coronavirus	4
	Total	14
Social relationships in pandemic	Relationships with relatives/neighborhood	13
	Partner relationship	12
	Social support	14
	Total	39

"I couldn't go until 5 months of pregnancy.... So the coronavirus had an effect. I said now the hospital is crowded. I thought I'd go lately." P6

Theme-4: Precautions/COVID-19 Vaccination

Alt-theme 1: Hygiene/social distancing/mask

Participants were asked about the measures they took to protect themselves from the COVID-19 infection. All participants, except one woman, were applying "Hygiene-Social Distance-Mask" measures.

"...I did not take off my mask. I washed my hands often. I used disinfectant. I tried not to go out too much. Since my husband works, I wash his clothes more carefully." P2

Subtheme-2: Avoiding indoors/avoiding indoor gatherings

Most of the participants stated that they avoid indoor places, visiting relatives, and friends.

Table 3: Vaccination status of the participants

Vaccinated participants	P8	P3	P4	P11	P7	P1
Number of vaccine doses	1	2	3	2	1	2
Brand name of the vaccine	S	B	S	B	S	B

S: Sinovac; B: Biontech.

"...Before pregnancy, I was a little more comfortable about going out. During pregnancy, I don't leave the house as much as possible..." P8

Subtheme-3: COVID-19 vaccination

Participants were asked about the status of being vaccinated against COVID-19. Half of the participants had at least one dose of COVID-19 vaccine. Vaccination status of the participants is given in Table 3.

3 of the 6 unvaccinated participants stated that they could not know the content of the vaccine and that it is a new vaccine, so they did not prefer to be vaccinated. Two of them stated that they had no need to be vaccinated, just because they stayed at home. A pregnant woman emphasized that she would be vaccinated but could not find the opportunity

“...Nothing proven yet. That it might harm you in the future. I haven't seen anything proven that the vaccine will be good.” P2

Theme-5: Disease Process

Participants were asked whether they and their relatives had COVID-19 infection before, how was this process, and how they felt during that period. While four participants had coronavirus disease before, two of them had the coronavirus disease during their pregnancy.

Subtheme-1: Disease process

All of the participants experienced the coronavirus disease with mild symptoms (myalgia, loss of taste-smell, weakness), and there were no participants who needed ventilation and required hospitalization.

Subtheme-2: Worry about herself

Some participants stated that although they survived the disease mildly, the process was very hard psychologically, they were in fear and sadness, and they were afraid of getting the disease again.

Subtheme-3: Worry about the baby and relatives

Some participants stated that they were afraid of infecting their relatives, and they were worried about their babies.

“...I had it last year. I had fear and sadness in case children are infected. I worry if I or my children get the disease again...” P1

Subtheme 4: Breastfeeding behavior when infected with coronavirus

Participants were asked questions about breastfeeding and COVID-19. Half of them think that the transmission is not possible through breast milk. None of the pregnant women mentioned that they would stop breastfeeding if they became infected with COVID-19.

“...I even read a news article that breastfeeding protects against coronavirus. I'm still breastfeeding...” P5

Theme 6: Social Relationships in Pandemic

Subtheme-1: Relationships with relatives/neighborhood

Some of the participants, who said that their social relations were adversely affected, stated that they were afraid of infecting their relatives.

“...I was living with my parents when I was single. I couldn't hug my elders, because the disease affects the elderly more. It was so sad to be away all the time...” P2

Subtheme-2: Partner relationship

The majority of the participants mentioned that their social relationship with their spouse was not affected during the pandemic process. Some participants stated that their relationship with their spouse was negatively affected.

“...We were engaged, we could not meet. It was bad not to be able to go out and spend time. It affected me of course.” P2

Subtheme-3: Social support

Most of the participants stated that they received enough support from their relatives. Almost all of the participants stated that they could get enough support from their spouses.

“...they tried to support. Since I am used to doing everything alone, I do not expect much support. No problem for me...” P5

“Yes, I got a lot of support from my husband. In a very good way. Most of the time, I was strong thanks to my husband.” P10

DISCUSSION

Pandemic can cause increased anxiety and stress, especially in vulnerable groups. Information sources about pandemic are important to prevent false beliefs and excessive anxiety. In our research, all of the participants stated that they followed the information about the pandemic on television, in addition to that they consulted their doctors and received information from social media and the internet. Mizrak Sahin et al.^[15] According to the study, pregnant women stated that they frequently received information about COVID-19 from television and social media. The source of news during the pandemic process is very effective in raising awareness about the pandemic, the mood in the pandemic, and the preventive measures taken. For this reason, programs and publications about COVID-19 should be accurate and guiding.

Birth rates have decreased worldwide with the COVID-19 pandemic.^[16] According to the research conducted by Lindberg et al.,^[17] 40% of newly pregnant and recently giving birth participants stated that they changed their minds about the time and number of children they wanted to have a child with due to the pandemic, and 34% stated that they wanted to have fewer children due to the pandemic. In our study, it was determined that the desire to become pregnant was not affected by the pandemic in most of the pregnant women and the participants got pregnant on a planned basis. The difference in research results may be due to the differences in cultural beliefs of the societies and family structures.

During the pandemic period, physical activity decreased in pregnant women due to isolation rules.^[18,19] Aydin et al.^[20] stated, the physical health of pregnant women was adversely affected during the quarantine period. In addition to the effects of pandemics on physical health, mental health is also greatly affected. According to the literature, stress, anxiety, depression, and sleep disorders are the most common mental problems in pregnant women during the pandemic period.^[15,20] Similarly, in our study, 10 of the 12 participants stated that

they experienced mental problems such as stress and anxiety during this period. Most of the participants who said they were adversely affected mentioned that they were afraid of a possible infection with COVID-19, and its possible negative effects on themselves and their babies. According to the literature, the risk of transmitting infection to the fetus worries pregnant women, and the concern of not receiving adequate care for the baby in case of infection has been stated as a factor that increases their stress.^[20,21]

Mizrak Sahin et al.^[15] stated that pregnant women in our country could not go to their appointments because of fear of infection. In the literature, it was observed that 4.3% of the pregnant women who needed prenatal care did not apply to any health institution.^[22] According to our research, one-fourth of the pregnant women mentioned that they could not go to pregnancy visits regularly. Especially with the pandemic, online/remote health services have been expanded to ensure the continuity and easy accessibility of health services. In our country, there is a telemedicine application for online health services.^[23] However, none of the pregnant women in our study benefited from online health services and only one was aware of these services. There is a need for studies on disseminating remote health services, increasing their awareness and accessibility.

COVID-19 vaccine is recommended for pregnant and lactating mothers.^[24] Skjeftje et al.^[25] mentioned that the biggest reason why pregnant women were not vaccinated was the concern that their babies would be harmed, while the other two most common reasons were political reasons and the need for more data on the vaccine. In our study, half of the pregnant women were not vaccinated. Participants did not choose to be vaccinated, as they most often did not know the content of the vaccine.

Limitations and Strengths of the Study

With the qualitative type of our research, a deep and broad perspective was provided to the problems of pregnant women such as their thoughts, feelings, and access to health services related to COVID-19 infection. With this broad aspect, our research makes important contributions to the literature. It is the strength of the study. The limitation of observation due to data collection over the phone and the fact that the participants lived in similar regions where participants were from the same hospital were the limitations of our research.

CONCLUSION

Most of the pregnant women stated that the pandemic period had negative psychological effects. Therefore, it should be considered that maternal mental health is a priority concept both internationally and nationally. Policies should be determined for health services where the mental and physical health of pregnant women are at the forefront. The awareness on this issue should be also increased.

Statement

Ethics Committee Approval: The Marmara University Faculty of Medicine Clinical Research Ethics Committee granted approval for this study (date: 08.10.2021, number: 09.2021.1099).

Informed Consent: Verbal informed consent was obtained from patients who participated in this study.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept – ZMA, SH, BT, MÖ, AK, MY, SK, DS; Design – ZMA, SH, BT, MÖ, AK, MY, SK, DS; Supervision – ZMA, SH, BT, MÖ, AK, MY, SK, DS; Data Collection and/or Processing – BT, MÖ, AK, MY, SK; Analysis and/or Interpretation – ZMA, SH, BT, MÖ, AK, MY, SK, DS; Literature Search – ZMA, SH, BT, MÖ, AK, MY, SK, DS; Writing – ZMA, SH, BT, MÖ, AK, MY, SK, DS; Critical Reviews – ZMA, SH, BT, MÖ, AK, MY, SK, DS.

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