

Original Article

Effects of the Covid-19 Pandemic on the Mental Health and Wellbeing of Pregnant Women

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Abstract

Background: COVID-19 pandemic has negative effects on the mental health and well-being of pregnant women. However, the number of studies in which the effect of the COVID-19 pandemic on mental health and well-being of pregnant women was investigated from their perspectives was limited.

Objective: This study was aimed at determining the effects of the COVID-19 pandemic on the mental health and well-being of pregnant women.

Methodology: In this study, the phenomenological method, a qualitative research design, was used. The data were obtained from 33 pregnant women who were hospitalized in the obstetric ward through essays they wrote.

Results: Two main themes were determined: (1) feelings of pregnant women during the COVID 19 pandemic, (2) thoughts of pregnant women regarding the COVID 19 pandemic.

Conclusions: During the pandemic, the participating pregnant women experienced negative feelings and thoughts, measures such as social isolation affected their pregnancy process and daily lives directly or indirectly, and almost none of them used a coping method.

Keywords: COVID-19, Pregnancy, Mental health, Qualitative research

Introduction

The COVID 19 pandemic affects individuals in many ways such as health, economic issues and social relationships. Preventive measures such as social isolation and quarantine taken during the COVID 19 pandemic can cause individuals to experience many negative moods such as anxiety, fear and loneliness. Within this context, it is very important to consider the COVID 19 epidemic not only as a physical but also as a mental health crisis if the mental health of the society is to be protected (Ahmad & Vismara, 2021; Bahar, Cuhadar & Bahar, 2020; Brooks et al., 2020). One of the groups most affected by these negative pandemic conditions that affect the whole world is pregnant women. Pregnancy is a condition leading to changes in body pattern, social relationships and roles of

family members, which affects not only the biological status of pregnant women but also their psychological and social adaptation. In addition to the physical and mental changes that pregnant women experience, the compulsory changes they experience in processes such as routine follow-up, controls, contraception methods, delivery and mode of delivery due to the COVID-19 pandemic, and their being unable to receive adequate social support may adversely affect their mental health (Ahmad & Vismara, 2021; Aydin et al., 2020; Ozsahin, Erdemoglu & Karakayali, 2018; Ozorhan, Ejder & Sahin, 2014; Halbreich, 2005).

Background

The review of studies conducted regarding the effects of the COVID-19 pandemic on the

mental health of pregnant women demonstrated that pregnant women's pandemic-induced depression and anxiety levels increased, that they had to continue working despite the increase in their depression and anxiety levels, and that they were affected by the high rate of new COVID-19 cases and deaths announced officially (Gurbuz et al., 2021; Wu et al., 2020). In Corbett et al.'s study (2020), pregnant women were most worried about their elderly relatives, and then their children and unborn children. On the other hand in Milne et al.'s study (2020), of the pregnant women, 44% felt lonely due to social isolation and 14% had economic concerns because they were unable to work (Corbett et al., 2020; Milne et al., 2020). As stated in several studies, the COVID-19 pandemic has negative effects on the mental health and well-being of pregnant women. In their review, Ahmad and Vismara (2021) suggested that more research should be conducted on the negative effects of the pandemic on the mental health of pregnant women and that preventive mental health services should be provided to pregnant women during this period (Ahmad & Vismara, 2021). Our literature review demonstrated that the number of studies in which the effect of the COVID-19 pandemic on mental health and well-being of pregnant women was investigated from their perspectives was limited. A better understanding of the experiences of pregnant women in this process may help health professionals to provide better preventive mental health care to them.

Aim: This study aimed to determine the effect of the COVID-19 pandemic on the mental health and well-being of pregnant women.

Materials and Methods

In the present study, the phenomenological method, a qualitative research design, was used. Through qualitative research, it is possible to explore the participants' emotions, thoughts and experiences in detail (Miles & Huberman, 1994; Creswell, 2015; Yildirim & Simsek, 2016). The phenomenological research design focuses not on the measurement of facts but on individuals' beliefs, perceptions, feelings and experiences about a phenomenon (Sandelowski, 2000). In this type of a study, the researcher determines

“what” individuals experience and “how” they experience it (Miles & Huberman, 1994; Streubert & Carpenter, 1999; Kumbetoglu, 2005; Creswell, 2015). In the reporting of the present study, we complied with the guidelines stated in the Consolidated Criteria for Reporting Qualitative Research (COREQ) (Tong, Sainsbury & Craig, 2007).

Participants and setting: Of the pregnant women who were hospitalized in the obstetric ward of a state hospital in a province between March 10, 2022 and April 10, 2022, those who met the inclusion criteria of the study comprised the population of the study. We used the purposive sampling method in this study. While determining the sample size in qualitative studies, an approach that requires researchers to continue collecting data until the saturation point is achieved is used (Yildirim & Simsek, 2016; Miles & Huberman, 1994; Streubert & Carpenter, 1999; Kumbetoglu, 2005; Creswell, 2015). Accordingly, the data saturation was established in the 30th participant. However, three additional participants were included to substantiate that data saturation had been achieved (n=33).

Inclusion criteria: Volunteering to participate in the study, being ≥ 18 years old, being able to read and write in Turkish, being in the last trimester of pregnancy, being in the latent phase in the relevant institution during the study, not having an additional risky pregnancy (GDM, Preeclampsia, etc.) during the data collection process, and not having a diagnosis of COVID-19 during pregnancy, and being in the ≥ 24 weeks of gestation.

Data collection: In the present study, pregnant women who were in the obstetric ward and whose labor process was about to start were asked to write down an essay on how they felt during the pandemic process and how their lives were affected. One of the researchers works as a nurse in the obstetrics clinic of the hospital where the data were collected. She was with the pregnant women in the process of reaching, monitoring and observing them during the COVID-19 pandemic. Before the data were collected, the researcher told the pregnant women that they could freely write their opinions and that each opinion

was valuable. The data were collected at the times and days appropriate for the pregnant women, in one-person patient rooms in order for the pregnant women to express themselves comfortably, by providing an environment where only the researcher and the pregnant woman participating in the study could be present. In order to ensure consistency, all the stages of the data collection were carried out by the same researcher using the same method and form. In order to ensure credibility, the opinions of the patients were presented with explanatory notes in the conclusion section. The pregnant women who participated in the study were coded as "Patient (p1, p2, and so forth)" and their names were kept confidential. Essay forms filled in by the pregnant women were analyzed. Two female researchers trained and experienced in qualitative research conducted the study. One of the researchers works as a faculty member at a state university, and the other works as a specialist nurse at a state hospital. The pregnant women were first asked to answer six questions on their age, education status, employment status, social security, family type, health insurance and pregnancy information (gravidity, parity, abortion, miscarriage) and then to write an essay to answer the following two questions:

- Could you write down how you felt during the COVID-19 pandemic regarding your pregnancy?
- Could you write down how the COVID-19 pandemic affected your life?

For the two aforementioned questions, the expert opinion was obtained from two independent faculty members who were specialized in psychiatric nursing.

Ethical considerations: Before the study data were collected, ethics committee approval (decision date: July 09, 2021, decision number: 2021/83) was obtained from Toros University Scientific Research and Publication Ethics Committee. Institutional permission was obtained from the Ministry of Health and the management of hospital where the study was to be conducted. Finally, the participants were informed about the scope of

the study and data confidentiality in detail, and their written informed consent was obtained.

Data analysis: In the analysis of the data obtained from the essays, firstly, the raw data were obtained by transferring them to a word file. After the creation of the word file, both of the researchers repeatedly read and grouped the raw data. Since the majority of the data were not interpreted numerically, it should be taken into account that the results obtained are applicable only to the individuals participating in the study and cannot be generalized. In the qualitative analysis of the data transferred to the computer, content analysis was carried out by considering the prevalence of the comments in the answers, the number of participants who made the same comment or used the same word, what was meant, and the originality of the answers, rather than the words themselves. Considering the differences and similarities in the essays written by the pregnant women, they were combined. After the raw data created were carefully read by each researcher, the data were processed by coding meaningful concepts and themes. Each researcher grouped the codes they created into 3-5 themes. Then they shared and compared the themes they created with each other, and common themes were created by both researchers. The raw data were given to two faculty members experienced in qualitative research but not included in the study team, and their opinions were obtained. After the expert opinions were obtained, two main themes and four subthemes were created (Streubert & Carpenter, 1999; Kumbetoglu, 2005).

Results

The mean age of the pregnant women participating in the study was 26.30 ± 4.66 (minimum=19, maximum=38) years. Of them, 16 were high school graduates, 27 were not working in any profession, 26 had social security, 24 had a nuclear family, 18 were

primigravidae, and 25 did not have a history of miscarriage, abortion or stillbirth. After the content analysis of the data was performed, two main themes (1= the feelings of the

pregnant women during the COVID-19 pandemic, 2= the thoughts of the pregnant women regarding the COVID-19 pandemic) and four sub-themes were created (Table 1).

Table 1. Themes Created based on the Pregnant Women's Essays Regarding the COVID-19 Pandemic

Main themes	Subthemes
THEME 1. Feelings of the Pregnant Women During the COVID-19 Pandemic	<ol style="list-style-type: none"> 1. Fear 2. Anxiety
THEME 2. Thoughts of the Pregnant Women Regarding the COVID-19 Pandemic	<ol style="list-style-type: none"> 1. The effect of the COVID 19 Pandemic on the pregnant woman's pregnancy process 2. The effect of the COVID-19 Pandemic on the pregnant woman's social life

Pregnant Women's Feelings during the COVID-19 Pandemic

Fear

Three-quarters of the participating pregnant women (n=23) stated that they were scared of being pregnant during the pandemic. They felt lonely, had a fear of losing the baby, felt remorse due to the possibility of catching COVID-19, regretted that they had not intended to become pregnant and to give birth before the pandemic, and were scared due to these negative emotions. Their statements regarding the fear sub-theme are given below.

"Emotionally, I was very afraid that my baby would get harmed due to COVID-19. I had the fear of losing my baby. I had the fear of giving birth. This made me afraid of losing my baby" (p9)

"I was afraid that it would infect my baby and me. My only concern and fear was that something would happen to my child. I regretted that I hadn't intended to become pregnant and to give birth before the pandemic." (p19)

"Emotionally, I felt very lonely. At the same time, I was very afraid of what my birth process would be like

due to the pandemic, and whether anything would happen to my baby." (p28)

Anxiety

Almost two-thirds of the pregnant women participating in our study stated that they experienced anxiety due to social isolation, their babies' and their own health, and having check-ups, that they felt bored and restless, that they did not enjoy life, that they suffered from stress seriously, and that pregnancy was a period which disrupted human psychology during the pandemic. (n=19). Two of them stated that they had concerns because if the baby were infected with the disease, the baby would be born prematurely, their lungs would not develop, and they would have to be treated in the hospital for a long time. One of them stated that she was worried because a great many pregnant women lost their lives at some time in the past. Only one of them worried that her baby would be born with COVID-19, and if such a thing happened, it would be a trauma for her. The statements made by them regarding the anxiety sub-theme are given below.

"I was nervous because a lot of pregnant women died at some time in the past" (p23).

"When you want to go somewhere, you always have fear and anxiety. For

example, when you have the flu, you don't know whether it's the flu or COVID-19, which made me worried. I was very worried that I might get COVID-19, and that my baby would be born prematurely or its lungs would not develop.” (p 29)

“Especially, if one catches the disease, then the baby would be born prematurely or they would stay in the hospital for a long time. I was worried that I would have to stay in the hospital so long.” (p 33)

Only one of the pregnant women stated that she had a positive sense of being pregnant. Here, she stated that she felt safe and had no anxiety because her pregnancy was in the second year of the pandemic and she had been vaccinated.

“Since my pregnancy was in the second year of the pandemic, I actually did not isolate myself much, I could not, I had to work anyway. I also felt safe as I had been vaccinated for four times and I was positive for COVID-19 before pregnancy and survived at home without the need for a hospital. However, if I hadn't had my vaccinations and hadn't had a positive PCR test before, I'm sure I would have had a very anxious pregnancy.” (p16)

The essays written by the pregnant women revealed that almost all of them experienced negative emotions. Only one pregnant woman mentioned social support. Five of them tried to cope with the pandemic by displaying a fatalistic approach and were relieved by being grateful to God that they were not sick.

“My sister supported me a lot during this process, which reduced my sense of loneliness a little.” (p28)

“Thank goodness I didn't have it. We, my baby and I, are perfectly healthy.” (p26)

The Participating Pregnant Women's Thoughts on the COVID-19 Pandemic

The Effect of the COVID-19 Pandemic on the Pregnancy Process of the Participants

Almost one fourth of the pregnant women stated that the COVID-19 pandemic adversely affected their pregnancy (n=8). Six pregnant women stated that being pregnant was difficult during the pandemic. Below are the statements of the pregnant women regarding the sub-theme of the effect of the COVID-19 pandemic on their pregnancy process.

“I had a very difficult pregnancy. It was very tiring because COVID-19 was still not over in this process. I had to pay more attention to my pregnancy in every respect.” (p 8)

“It is difficult to be pregnant during the pandemic. It was more difficult than my previous pregnancies.” (p 32)

Due to factors such as having check-ups (n=2), breathing with a mask (n=2), long duration of the pandemic (n=1), being able to go only a limited number of places (n=1) and having to go shopping for their babies to be born (n=2), they had negative experiences due to the pandemic.

“As a pregnant mother, the number of places I could go was limited. Everything was limited.” (p 4)

“That it lasted for a long time made me tired.” (p 8)

“Since it is my first child, I would like to go shopping comfortably with my husband, but it was a bit of a hassle.” (p 13)

“Curfews also cause problems in going to the hospital in daily life, which makes people suffer. Moreover, I felt like I was short of breath as my pregnancy progressed. Having to wear a mask caused me to have difficulty breathing.” (p 20)

Effects of the COVID-19 Pandemic on the Participating Pregnant Women's Social Life

Almost all of the participating pregnant women (n=27) stated that the pandemic affected their social life negatively. Three-fourths of the pregnant women stated that they paid great attention to social isolation (n=21) and precautionary rules (n=13) due to the

pandemic. Below are the pregnant women's statements regarding the sub-theme of the effect of the COVID-19 pandemic on their social life.

"I was extremely careful. It affected me quite a bit. We couldn't go out. We used to go out once a week, but now once a month. Now, we even did shopping online. We cleaned the house every two days." (p 25)

"You want to join an environment, but you cannot. You can't see your closest friends, loved ones like your mother or father. After all, they have chronic diseases. No more family and friendship relations. You cannot hug or approach even your own child." (p 29)

The participating pregnant women stated that the pandemic process negatively affected (n=9) and limited their lives (n=3), and that they had to postpone or cancel their plans (n=5). Only two pregnant women stated that the pandemic did not affect their lives.

"It affected our lives very negatively. Physically, spiritually and psychologically."(p8)

"Due to the pandemic, I couldn't go to the school I wanted to go. I won't be able to get the job I want. I have been married for 9 months. We couldn't have a wedding reception, only wedding ceremony, which caused us to give up on our dreams." (p 13)

"Actually, I wanted to become pregnant before, but I postponed it due to the pandemic." (p 31)

"We are farmers. Normally, we spend our lives between home and work. We did not get together with many people; it did not affect us much." (p 32)

The participating pregnant women stated that the pandemic negatively affected their lives in terms of education (n=2), economic status (n=6), family relations (n=3), transportation (n=2) and working life (n=4). Only one pregnant stated that they did not experience any economic problems because there was no

change in her husband's working life during the pandemic.

"It can create tension in the family." (p8)

"For example, work. I was unemployed due to the pandemic. Then I couldn't find a job. Of course, I had financial difficulties because of this. For example, I couldn't return from where I went for a month and a half due to the curfew, I felt like a prisoner. Intercity travel was prohibited. Then I realized that there was no place like home. I went there for a week but I had to stay for a month and a half." (p 24)

"I have three more children. It greatly influenced their education. The constant homeschooling caused problems for us. After all, education at home environment is not like education at school. Because they did not respect me as much as they respect their teachers; this also disrupted their education." (p 33)

Only four of the participating pregnant women stated that they found a meaning in the pandemic, that the pandemic was a teaching process, and that they realized the meaning of life.

"I realized how important health was. I realized how important it was to be free, to live, to move and to breathe comfortably. I realized how precious life was." (p 3)

"COVID-19 taught me that my family, their lives are much more precious..." (p 16)

Discussion

Almost all of the pregnant women participating in the present study stated that they experienced negative emotions such as fear and anxiety due to the COVID-19 pandemic. They also stated that they experienced fear stemming from negative emotions and thoughts such as loneliness, fear of losing loved ones, remorse, regret and guilt, that they experienced anxiety, restlessness, stress, and boredom due to the pandemic and

social isolation imposed for precautionary purposes and that pregnancy was a period that disrupted human psychology during the pandemic. Our results were consistent with those in the literature. In their study (2021), Ravaldi et al. determined that the emotion felt most intensely by the pregnant women was joy before the pandemic but fear after the pandemic (Ravaldi et al., 2021). Similarly, in several studies, it was demonstrated that pregnant women experienced fear due to the COVID-19 pandemic (Giesbrecht et al., 2022; Ahlers-Schmidt et al., 2020), and that their depression and anxiety levels increased (Ahmad & Vismara, 2021; Hessami et al., 2020). In Campos-Garzon et al.'s systematic review (2021), the participating pregnant women were scared and worried that they themselves, their children and loved ones would be infected by the COVID-19 and would be exposed to the negativities of the disease. In addition to these negative factors, it was determined that loneliness of pregnant women led to an increase in depression symptoms (Campos-Garzon et al., 2021). In the present study, the pregnant women stated that they paid great attention to social isolation and precautionary rules, and that these measures restricted their lives, caused them to postpone or cancel their plans such as weddings and affected their lives negatively. Similarly, in Ahlers-Schmidt et al.'s study (2020), the pregnant women paid attention to social isolation and precautionary rules and canceled their plans for activities such as baby showers (Ahlers-Schmidt et al., 2020). In Flynn et al.'s study (2021), the pregnant women had to make changes in their wedding, holiday and business plans due to the pandemic (Flynn et al., 2021). In Khoury et al.'s study (2021), social isolation measures negatively affected the mental health of the pregnant women (Khoury et al., 2021). As (2021) stated in Sahin and Kabakci's study, family support is very important in Turkey, especially during the birth process. Sahin and Kabakci determined that intercity travel and going out were restricted especially for those over the age of 65, which caused the pregnant women to not get enough support from their parents and to experience the pregnancy process more difficult (Sahin, & Kabakci, 2021). All these results suggest that not only did pregnant women experience negative

emotions such as fear and anxiety due to the pandemic, but also precautionary measures and social isolation negatively affected their mental health.

Only one pregnant woman in our study stated that she felt safe because her pregnancy coincided with the second year of the pandemic and she was vaccinated. Similarly, in Giesbrecht et al.'s study (2022), pregnant women had less fear when the number of the cases decreased; however, they were most scared after the second wave of the pandemic began (Giesbrecht et al., 2022). This result suggests that the course of the pandemic and vaccination status affected the mental health of the pregnant women. The participating pregnant women stated that their pregnancy was adversely affected by the pandemic due to such factors as long duration of the pandemic, having difficulty in having check-ups, breathing with a mask and going shopping for their babies to be born, and being able to go only a limited number of places, which made pregnancy a difficult process. In their review (2020), Hessami et al. stated that pregnant women's continuing doing physical activities was a protective factor in terms of mental health, but that unfortunately they had to restrict physical activities due to the pandemic (Hessami et al., 2020). Similarly, in Sahin and Kabakci's study (2021), the activities of pregnant women such as walking were restricted due to social isolation (Sahin & Kabakci, 2021). In Akgor et al.'s study (2021), the pregnant women had concerns about the possibility of having problems in going to health institutions for their check-ups (Akgor et al., 2021). The pregnant women in our study stated that the pandemic negatively affected their lives in terms of education, economy, family relations, transportation and working life. Only two of them stated that the pandemic did not affect their lives. In Khoury et al.'s study (2021), there was an increase in depression and anxiety levels of the pregnant women due to the risk of COVID-19 transmission, social isolation, economic problems and difficulties in interpersonal relationships (Khoury et al., 2021). The fact that these restrictions were negative factors that developed indirectly due to social isolation and precautionary rules showed that social isolation affected the mental health of

pregnant women negatively not only directly but also indirectly. Moreover, as far as we know, in the literature including studies conducted on breathing of pregnant women with masks, only Sahin and Ozkan (2022) stated in their review that pregnant women might experience difficulties due to wearing masks during delivery (Sahin & Ozkan, 2022), and we were unable to find any other finding. In this respect, we expect that our study may contribute to the literature.

While the participating pregnant women stated that they were worried about the health status of their own and their babies to be born, and follow-up of their pregnancy, a few of them stated that they experienced anxiety due to the possibility of their babies' being delivered prematurely and having undeveloped lungs, the long treatment process in the hospital and the high number of deaths of infected pregnant women at some time in the past. According to the results of three studies, pregnant women were more concerned about their pregnancy and their babies to be born than they were about their own health (Khoury et al., 2021; Ahmad & Vismara, 2021; Giesbrecht et al., 2022). In their systematic review, Campos-Garzon et al. stated that the source of intense anxiety in pregnant women was their concern for the health of their babies to be born, due to the possibility of their babies' being infected during birth and being delivered prematurely. Moreover, since pregnant women's being misinformed affects their mental health, it is recommended that they should be provided with correct information (Campos-Garzon et al., 2021). In their study (2021), Sahin and Kabakci determined that the pregnant women could not get enough information, and that they used the internet and television as information sources (Sahin & Kabakci, 2021). In our study, as stated above, the participating pregnant women experienced anxiety due to getting non-evidence-based information that could not be generalized. Thus, it is important to inform pregnant women through correct information sources.

A few of the pregnant women who participated in the present study stated that they found a meaning in the pandemic, that the pandemic was a teaching process and that they realized the meaning of life. In Ekwonye

et al.'s study (2021), the participants accepted the pandemic as the new reality of life by trying to cope with the pandemic through personal development and positive life changes (Ekwonye, Hearst & Howard, 2021). As far as we know, no such result was found in other studies conducted with pregnant women. Within this context, we expect that our study can contribute to the literature.

While only one of the pregnant women stated that she tried to cope with the negative effects of the pandemic thanks to social support she received, and a few of them coped with the pandemic by displaying fatalistic approach. However, the majority of them did not use any coping method. Our review of studies demonstrated that social support and physical activity were important protective factors to overcome the negative effect of the pandemic on the mental health of pregnant women (Jago, Singh & Moretti, 2020; Ahmad & Vismara, 2021; Khoury et al., 2021). In Ahlers-Schmidt et al.'s study (2020), among the coping methods used by the pregnant women were meditation, physical activity, hygiene and social support (Ahlers-Schmidt et al., 2020). In Sahin and Kabakci's study (2021), some pregnant women tried to cope with the pandemic by displaying a fatalistic approach such as praying as some participants in our study did (Sahin & Kabakci, 2021). While protective factors such as social support, activity and meditation were more prominent in other countries, a more fatalistic approach was more prominent in studies conducted in our country. This is probably due to the fact that the provision of family support as a preventive measure decreases the negative life experiences of individuals in Turkey due to social isolation and that people resort to the fatalistic approach such as praying and being grateful to God, traditionally more common coping methods.

Conclusion: In the present study, the participating pregnant women experienced negative emotions due to the pandemic. Measures such as social isolation due to the COVID-19 pandemic adversely affected both pregnancy processes and lives of the pregnant women, directly or indirectly, and as stated by them, being pregnant was difficult during the pandemic. Only a few of the participating pregnant women used coping methods against

the pandemic-induced negativities they experienced. In line with these results, we recommend that health professionals should ensure that pregnant women could access the right information sources, should provide training within the scope of their educational roles, and thus should prevent pregnant women from getting false information. Health professionals should provide holistic care, should support them online or face-to-face depending on the current conditions, and should provide psychological support by giving counselling when necessary.

Limitations: Since the present study was conducted in the obstetric ward of a state hospital in Turkey, its results are applicable only to the pregnant women surveyed, and cannot be generalized to all pregnant women.

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