

## Research Paper

## The Lived Experience of Pregnant Women With Coronavirus During COVID-19 Pandemic: A Qualitative Study

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**ABSTRACT**

**Objective:** Pregnancy is one of the most fundamental and challenging periods in a woman's life. It is associated with significant physical and psychological changes in pregnant women. These changes, combined with COVID-19 disease, can make life much more challenging. This study aimed to evaluate the lived experience of pregnant women with COVID-19 disease.

**Methods:** This research is a phenomenological qualitative study. We used the content analysis method to identify the mental experiences of pregnant women with COVID-19. In the present study, in-depth interviews were conducted with pregnant women affected with COVID-19. The semantic units were identified after careful analysis and coded under the headings of concepts, subcategories, main categories, and core categories.

**Results:** In the current study, the generalized fear of harm to the fetus was the most important issue these women had experienced. Another stressor was the fear of childbirth in a contaminated hospital setting. COVID-19 quarantine, reduced ability to care for themselves and family members and loneliness caused them to lose motivation. Restlessness, guilt, rejection, suffering, and efforts to get rid of discomfort were also the main characteristics of this period.

**Conclusion:** Getting coronavirus is an unexpected event for pregnant women that puts a lot of stress and pressure on them and can make them psychologically suffer.

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## Highlights

- Pregnancy is an important challenging periods in a woman's life;
- Women who develop psychiatric problems during pregnancy are at greater risk;
- Numerous studies have been carried out about the physical effects of COVID-19 on pregnant women.

## Plain Language Summary

Pregnancy is one of the most challenging periods in a woman's life. Various studies on the experiences of pregnant women during the coronavirus pandemic have shown that it has significant effects on areas such as psychological health, social life, and marital relationships. Pregnant women during a pandemic are concerned about its effects on pregnancy, the fetus, and its birth and may feel neglected. Other consequences of this pandemic are doubts about the method of delivery and a strong sense of social isolation. Symptoms of depression, posttraumatic stress disorder, preterm birth, and low birth weight are other complications of pregnancy and childbirth in COVID-19 conditions. No in-depth studies are found on the lived experiences of pregnant women with COVID-19. Therefore, we aimed to fill this gap in the area of pregnant women.

### 1. Introduction

Pregnancy is one of the most fundamental and challenging periods in a woman's life. This period is associated with major physical and psychological changes in pregnant women (Saxbe, Rossin-Slater, & Goldenberg, 2018). These changes cause varying degrees of anxiety and stress in many women (Cohen et al., 2006). On the other hand, a pandemic can significantly increase the risk of catching diseases and psychological symptoms (Dennis, Falah-Hassani, & Shiri, 2017). Meanwhile, reports indicate an increase in symptoms of anxiety and depression among pregnant women during the COVID-19 pandemic (Tomfohr-Madsen, Racine, Giesbrecht, Lebel, & Madigan, 2021). Women who develop psychiatric problems during pregnancy are at greater risk and may have adverse outcomes (Nillni, Mehralizade, Mayer, & Milanovic, 2018). Research has shown that high pregnancy anxiety levels and stressful events are associated with a range of adverse outcomes, including low weight, reduction in Apgar score, preterm delivery, intrauterine and fetal asphyxia growth restriction, abortion and cleft palate, and stomach tightening during pregnancy (Rahimi & Mehr, 2021). Moreover, stress and anxiety during pregnancy are associated with an increased risk of depression, communication disorders (Norhayati, Hazlina, Asrenee, & Emilin, 2015), poor attachment between parents and children (Newman et al., 2016), health problems (Saulnier & Brodin, 2015), and so on.

Previous studies on the experiences of pregnant women during the coronavirus pandemic have shown that this phenomenon has significant effects on areas such as psychological health, social life, and marital relationships (Aydin & Aktaş, 2021). Sahin and Kabaki indicated that pregnant women during a pandemic are concerned about its effects on pregnancy, the fetus, and its birth (Sahin & Kabakci, 2021) and may feel neglected (Karavadra, Stockl, et al., 2020). Other consequences of this pandemic are doubts about the method of delivery (Sahin & Kabakci, 2021; Yassa et al., 2020), reduced desire to go to contraceptive centers due to fears of COVID-19 (Karavadra et al., 2020), and a strong sense of social isolation (Yassa et al., 2020). Symptoms of depression, posttraumatic stress disorder, preterm birth, and low birth weight are other complications of pregnancy and childbirth in COVID-19 conditions (Salehi, Rahimzadeh, Molaei, Zaheri, & Esmaelzadeh-Saeieh, 2020). These consequences are due to the immunosuppression the women experience during pregnancy that makes them susceptible to viral infections, including COVID-19 (Chen et al., 2021). Thus, the adverse complications of COVID-19 can easily be aggravated in pregnant women.

Numerous studies have been carried out about the physical effects of COVID-19 on pregnant women. However, given the short time since the onset of the pandemic, understanding the psychological issues of COVID-19 affecting pregnant women is still demanding and requires further investigation. To the best of our knowledge, no in-depth studies are found on the lived experiences of pregnant women with COVID-19. Therefore, we aimed to fill this gap in the area of pregnant women.

## 2. Participants and Methods

### Study design

In this study, a qualitative approach to phenomenology and content analysis was employed to gain an in-depth understanding of the mindset of pregnant women with COVID-19.

### Sampling methods and study frameworks

In the present study, in-depth interviews were conducted on [WhatsApp](#) with pregnant women who had COVID-19 and were recovering. The participants were selected via a convenient sampling method after the public call via various Telegram, [WhatsApp](#), and [Instagram](#) channels and groups in April 2020. Then, initial contact was made with each woman who had declared her willingness to enter the study. They needed to have at least two weeks of quarantine experience during the illness to be eligible for the study. They should also have recorded no history of serious illness or high-risk pregnancies except in the case of COVID-19. The interviews continued until data saturation with the sixth case, and two additional interviews were conducted to ensure saturation, and thus a total of 8 interviews were conducted.

### Study participants

The Mean±SD age of participants was 29.03±4.25 years, and the Mean±SD gestational age according to ultrasound was 6.13±2.3 months. Eight participants (66.66%) had a bachelor's degree, and the rest had a diploma.

### Collecting data

The semi-structured and in-depth telephone interviews were conducted by an interviewer with a psychological background, social work practice, and familiarity with qualitative research interviews. Each interview lasted 60 to 100 minutes (an average of 85 min). The interviews began with a brief introduction of the interviewer and the purpose of the interview, obtaining informed consent and permission to record the participant's voice. Then, it continued with a question about the content of the interviewee's general introduction and demographic information. The starting question of the main body of the interview was: "What do you think about the effects of this disease on your pregnancy?"

For clearer and more in-depth information, each concept proposed by the interviewee was carefully followed and continued with questions about the effects of the

disease on the family and feelings about oneself, the fetus, and others. Some interviews were digitally recorded with the participants' permission and then written word for word and inserted in Microsoft Word. Interviews in which the participants were not satisfied with the recording were written simultaneously. Participants were interviewed by telephone in Persian. Each interview was reviewed and analyzed by the first author, and the subsequent interviews were modified or followed in greater depth under the influence of these analyses.

### Data analysis

Data analysis was simultaneously performed with the interviews. After each session, the recorded content of the interviews was transcribed on paper and entered in Microsoft Word. Semantic units, after careful analysis, were identified and coded as concepts. Concepts have been examined several times, from extraction to labeling as subcategories. Similar subcategories were merged and categorized, and main categories were defined. Eventually, the main categories were compared and merged to form the core category.

### Trustworthiness

To ensure the study's trustworthiness, we considered four criteria throughout the study process: credibility, dependability, confirmability, and transformability ([Kim, Prado, Santagata, and Villavicencio, 2021](#)). To increase trustworthiness, the researchers shared the findings with participants during the data collection and analysis process to ensure that the findings were consistent with their experiences. In addition, to support the trustworthiness of the findings, the techniques of reviewing the findings by colleagues and long-term and continuous interaction with the data were used. Also, some interviews were digitally recorded and then transcribed, and some were not recorded due to the dissatisfaction expressed by the interviewees. Besides, the method of exchange with peers was employed. To do this, the coding in the form of tables was provided for researchers specializing in qualitative research in Sociology and Psychology. These specialists also reviewed the process of coding and data analysis. To ensure transformability, sample diversification was considered.

## 3. Results

Data analysis led to the extraction of 196 concepts from the text of the interviews, which were classified into 36 subcategories, 5 main categories, and 1 core category ([Table 1](#)).

**Table 1.** Core category, main categories, subcategories, and example of concepts

Psychological Suffering		
Main Categories	Subcategories	Examples of Concepts
Mental and physical disorders	Decreased motivation	Boredom
	Emotional disorder	Experiencing negative or annoying emotions
	Losing hope and being angry with others	Depression due to people moving away
	Feel guilty	Guilt from the transmission of the disease to the fetus
	Disrupting the routine of life	Lack of fun and entertainment
Rejection	Pressure from those around	Tired of the advice of others
	Avoiding others	Keep people away from them
	Improper treatment of important people	Being blamed by others for being pregnant
	Around	Disconnect from family
	Loss of connection with the outside world	The reproachful look of others
Generalized fear	Isolation	Fear of fetal autism after birth
	Negative view of society	Fear of being a carrier of the virus after recovery
	Fear and anxiety due to child harm	Fear of being alone with the death of loved ones
	Fear of re-infection	Fear of getting more severe symptoms
	Fear of losing loved ones	Fear of being blamed by others in case of harm to the fetus
Suffering from exhaustion	Fear of transmitting the infection to other	Abdominal pain when hearing the name Coronavirus
	Suffering and great difficulty at the time of hospitalization	Sudden restlessness
	Obsessive-compulsive behavior	Intolerance of loneliness in the hospital
	Hard and exhausting pregnancy in	High restrictions in the hospital
	Coronavirus conditions	Excessive house cleaning
	Cooling of the couple's communication	Tendency to end the pregnancy
	Space	Staying away from my wife for fear of coronavirus
Trying to get rid of suffering	Lack of understanding of spouse	Not being understood by the spouse
	Injury of children due to the decrease in the presence of the mother	The loneliness of other children
	Reassurance	Extensive research on the effects of coronavirus on pregnancy
	Do not expect from others	I did not expect anything from anyone
	Strive for positive thinking	Positive attitude instead of worry
	Trust and hope	Hope
	Seek medical advice	Confidence in the doctor
	Magical thinking (filling spiritual ideas)	Increase spiritual connection
	Trying to convey a good feeling to the fetus	Do not talk about the corona with the fetus
	Hope against despair	Too much conflict
Take more care of themselves	Strengthen myself with nutrition	

## Main categories

### Generalized fear

Fear and stress is an issue that people may be dealing with every day, but sometimes an event such as illness or any other challenge that happens for us increases it or even turns it into a disorder. In this study, generalized fear is the most important issue that participants have experienced. They stated that when they became infected with COVID-19, the first thing that came to their minds and put them under severe stress was the fear of harming the fetus. They feared that the fetus would become disabled or suffer from certain problems due to the complications of COVID-19, such as being weak or vulnerable, suffering from mental or physical retardation, or even losing the fetus. For example, one participant said:

“My concern and stress are that the fetus gets harmed. Sometimes I think he should not become mentally retarded or gets autism or any other disability because of COVID-19. I am scared when I want to see the baby for the first time. I say that when the nurses wanted to show it to me for the first time, she should not have a limb injury or a mental problem. What does it look like then? I always think COVID-19 will hurt or hit him.”

Some participants feared infecting those around them with COVID-19 or losing loved ones, and some even feared they would get infected again and not be able to escape a second time. Fear of being reprimanded by others and labeled coronaian (someone who has been affected with COVID-19) was another fear reported by most interviewees, even after recovery. They were also afraid that if the fetus were harmed, family members would blame them. Fear of giving birth in a hospital environment infected with COVID-19 was also a common fear among the participants.

### Mental and physical disorders

One of the most important and frequent categories of the present study is the category of mental and physical disorders. Women reported that when they became infected with COVID-19, they did not have the patience to do anything at all; that is, they did not have the energy to work and spent time in a room without doing anything. Lack of healthcare, too much sleep, reduced ability to take care of themselves and family members, and too much loneliness caused them to lose motivation. They cried for many hours and were impatient. They also felt guilty about paying less attention to their families. For example, one participant said:

“I have been in quarantine for one month. I did nothing; I was imprisoned in the room for the first week. I did not see my children; there was nothing I could do, that is, I cried all the time, rotted alone, and sometimes I even feel like I am going crazy.”

### Rejection

Rejection is another major category found in the present study, which includes distancing from others, inappropriate treatment of others, loss of communication with the outside world, and negative views of society with regard to this issue. Many interviewees reported that during the illness, many of their relatives shunned them or cut off their support. For example, one participant said:

“I expect that sometimes my wife’s family will take my daughter to their house. Communication has been cut off for fear of getting infected since I took the coronavirus. This child is left inside the house and is depressed. My mother-in-law and father-in-law also told my wife to cut off communication. Well, these are the issues. It is also upsetting that sometimes they took care of my baby.”

### Suffering from exhaustion

Suffering from exhaustion was an important category that our participants experienced. It included the subcategories of painful hospitalization, obsessive and repetitive behaviors, challenging and exhausting pregnancies in pandemic conditions, the coldness of marital relationships, lack of understanding on the part of the spouse, harm to children, and pressure from relatives. For example, one participant said:

“When I was told that I had to be hospitalized, I was even more frightened and said that I would die because they either did not take care of me or the environment was polluted, and as a result, my condition worsened, and I did not recover well. I was very lonely there. I could not stand being alone at all. That is why I opened the door to hear the voices of the nurses.”

### Trying to get rid of suffering

Finally, the last category of the present study was the attempt to get rid of suffering, which included the following subcategories: reassurance, lowering expectations of others, striving for positive thinking, striving for hope, deepening religious beliefs, and trying to convey good feelings to the fetus. The interviewees of the present study, despite the pain and difficulties caused by preg-

nancy and COVID-19 disease, tried to cope with this disease and solve their problems. They consoled themselves by constantly searching for information about COVID-19, its impact on pregnancy, and the frequent reassurance of physicians and nurses. Many stated that when negative thoughts came to their minds, they tried to replace these thoughts with positive ones and be hopeful and trust in God. For example, one participant said:

“I have relied on God a lot since I took the COVID-19. God helped me be a little better now. I’m a normal person. I was not a very religious person; that is, I prayed and fasted, but not very carefully. But since I took the coronavirus, I have been praying for the first time due to fear of death, and I have constantly been reciting Salawat [A prayer for the Prophet Mohammad]. I have been reading the book of spiritual treasures.”

#### 4. Discussion

The present study aimed to investigate the lived experience of pregnant women with COVID-19. It is a new disease with relatively unknown dimensions that has created much ambiguity for human societies. One of these ambiguities is the psychological effects of COVID-19 disease on pregnant women (Huntley et al., 2021). These ambiguities are likely to increase the anxiety of pregnant women (Maleki, et al., 2021). Pregnancy is accompanied by biological and psychological changes in every woman’s life that are not easy to deal with.

Meanwhile, the COVID-19 pandemic and the infection of pregnant women with this disease can make this period even more challenging (Traylor, Johnson, Kimmel, & Manuck, 2020). COVID-19 disease suddenly entered the world community and caused a lot of fear and anxiety, and this fear was felt more in vulnerable groups in society, including pregnant women (Shorey, Ng, & Chee, 2021). Therefore, it is not surprising that the result obtained from the data analysis is a theme called psychological suffering. This concept encompasses and represents all other categories and results of this research. This result indicates that the infection of pregnant women with COVID-19 is an unexpected event that puts a lot of stress and pressure on them and can cause psychological suffering. This finding is consistent with previous quantitative and qualitative research (Brooks, Weston, & Greenberg, 2020; Liu, Erdei, & Mittal, 2021; Zhang et al., 2021) When participants in the study became infected with COVID-19, the first problem they experienced was severe anxiety and fear, which disrupted the pregnancy process and reduced their performance in the face of these challenges. Thinking about what happens

to pregnant women and their fetuses when they become infected with COVID-19 causes a great deal of fear and anxiety: fear of death and fetal loss.

Fear of death is an issue that exists among human beings at all times, but during traumatic events, people feel closer to it and bear more pressure (Behmard, et al., 2021). Another significant issue in the present study is the fear of people’s reproachful views and negative judgments, which was very common among these patients. Some said that even after recovery, they did not dare to enter crowds where they had previously felt comfortable because they feared people’s views and attitudes about them and their possible reactions. The pressure of social stigma and the negative view of others can be a painful issue for the individual. Other studies have identified mothers’ concerns with the social stigma of COVID-19 (Liu et al., 2021).

Mental disorder is another major category that most pregnant women suffer from. The components of this category were decreased positive emotions, motivation, attention to self and family, reduced activity, as well as increased isolation and loneliness, and suffering from various stresses and depression. Review studies have shown that pregnant women with COVID-19 suffer from anxiety and depression (Tomfohr-Madsen et al., 2021), loneliness (Harrison, Moulds, & Jones, 2021), and decreased positive emotions and quarantine stress (Miller, Iyer, Hawkins, & Freedle). Decreased social interactions and, in some cases, disconnection had an adverse effect on pregnant women. The lack of support from others during pregnancy and their avoidance had created a feeling of rejection by others in these women. Feelings of rejection and lack of support at the time of illness can be more difficult than the illness itself, which have caused these women to experience great frustration and anger towards their relatives and to suffer from it. This suffering is one of the results of the present study, which is referred to as suffering from exhaustion in the categories. It indicates a problematic pregnancy they encounter with COVID-19, making it difficult for them to endure this period. Research also shows that family support for pregnant women with COVID-19 is inversely related to the symptoms of posttraumatic stress disorder and anxiety, and depression (Aslan & Kiliñçel, 2021).

Hospitalization is frightening for these women, given the number of deaths due to COVID-19 and ambiguities about its impact on pregnancy. Loneliness in the hospital, fear of death, fear of not recovering, and harming the fetus was a trauma for them that did not leave them even after their partial recovery, and this led to mental fa-

tigue in them. The distance between the spouses during COVID-19 disease was another issue that upset them. Other qualitative studies have revealed that women during pregnancy and especially during the COVID-19 pandemic condition needed more attention, love, and support from their husbands (Aydin & Aktaş, 2021).

The other children of these women were another important group who also highly suffered due to the decrease in the presence of their mother, reduced attention, and lack of care for them. This issue caused concern, remorse, and guilt in these mothers. Pregnant women try to choose strategies to deal with these issues and cope with the situation. They eagerly await the end of these sufferings and the pregnancy. According to the results of this study, pregnant women try to calm down despite all the internal conflicts by relying on God, trusting in their physician, and hopefulness and positive thinking to avoid bad thoughts and believe that the child with whom they are pregnant would be unharmed. The growth of spirituality and closeness to God is so evident in these women that many acknowledged that the only thing that comforted them at that time was the mention of God's name, the Qur'an, and prayer. Recourse to spirituality is one of the coping strategies by which people can face problems. Other studies have also indicated that pregnant women during the COVID-19 pandemic find it practical to seek refuge in spirituality (Wheeler, Misra, & Giurgescu, 2021).

## 5. Conclusion

Pervasive fear is the most important issue that participants have experienced. They said that the first thing they experienced was fear of harm to the fetus. Therefore, these mothers experience many psychosocial consequences. So, using counselors in health centers can be effective. The experience of quarantine during the COVID-19 pandemic, followed by a lack of wellbeing, too much sleep, reduced ability to care for oneself and family members, and too much loneliness, caused them to lose motivation. Also, experiencing negative emotions to get rid of suffering is the main characteristic of this period, which in turn can cause a pathological condition called tocophobia. The role of health-care has been emphasized in reducing the symptoms of tocophobia. The health care team should offer appropriate solutions to help pregnant women cope with the fear. This study was performed on pregnant women with COVID-19 disease who were quarantined for two weeks. It is recommended that this study be performed on healthy pregnant women who have planned to become pregnant during this period. One of the problems of pregnant women is the lack of awareness about the coronavirus and fear of the medical environment. It is suggested to

study the effects of awareness-raising programs on these mothers during the COVID-19 pandemic. This study was performed outside the treatment environment and after partial recovery. It is suggested that a similar study be performed in the treatment environment.

This study was performed by telephone interview due to the COVID-19 pandemic and patients' conditions. The most important advantage is not to impose stress on pregnant mothers due to attending interviews and getting COVID-19. However, If the interview were face-to-face, the study would be more prosperous, and its analysis would be easier for the researcher. The second limitation was the great difficulty of collecting samples to reach saturation. Participants are informed before the interview that their voices will be recorded. It was challenging to convince some participants to do this study.

## Ethical Considerations

### Compliance with ethical guidelines

All ethical principles were considered in this article. The participants were informed of the purpose of the research and its implementation stages. They were also assured about the confidentiality of their information and were free to leave the study whenever they wished, and if desired, the research results would be available to them.

### Funding

There were no ethical considerations to be considered in this research.

### Authors' contributions

Conceptualization: Hamed Ghiasi; Methodology: Zahra Alipour, Hamed Ghiasi, and Maryam Bakhtiari; Interview, search, and resource collection: Fatemeh Askarirostami; Writing–review & editing: Hamed Ghiasi, Zahra Alipour, and Maryam Bakhtiari; Supervising: Maryam Bakhtiari; Data analysis: Zahra Alipour and Hamed Ghiasi.

### Conflict of interest

The authors declared no conflict of interest.

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