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Psychological and social impact and lifestyle changes among pregnant women of COVID-19 pandemic: A qualitative study

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ABSTRACT

Purpose: This study aimed to examine the challenges faced by pregnant women and their daily life activities during the COVID-19 pandemic, to assess the psychological impacts of the pandemic and their expectations to improve women's mental health, thereby increasing the awareness of healthcare professionals of the subject.
Methods: The research was conducted with the participation of 30 pregnant women, who were selected by purposive sampling using the phenomenological approach, between 15 June 2020 and 15 August 2020. Telephone interviews were conducted with pregnant women due to social isolation measures during the Coronavirus pandemic.
Results: In the study, the following four themes were determined: (a) measures taken against the pandemic, (b) problems regarding the antenatal period during the pandemic, (c) gestation period and change in social life, (d) psychological effects of the pandemic and methods for coping with them. Also, 14 sub-themes were determined regarding these themes.
Conclusion: The results of the study revealed that the pandemic had multidimensional impacts on pregnant women, including their social life and physical health. Psychologically, it caused many negative emotional states, particularly concerns and fears. During the pandemic, healthcare professionals should be aware of the needs of pregnant women and plan protective and informative interventions for both their physiological and psychological health.

Introduction

Coronavirus disease 2019 (COVID-19) is a new infectious disease caused by novel severe acute respiratory syndrome coronavirus strains (Li et al., 2020). Several psychological problems and mental health consequences have been observed during the COVID-19 pandemic, including stress, anxiety, depression, frustration, boredom, insomnia, anger, post-traumatic stress disorder, loneliness, and uncertainty (Bao et al., 2020; Erdoğan & Hocaoğlu, 2020; Kackin et al., 2020). Especially, the fear that increased with mass quarantine has caused widespread public anxiety (Serafini et al., 2020; Tee et al., 2020).

Anxiety and stress are the leading factors that can negatively affect the well-being and psychosocial health of mothers and babies during pregnancy (Körükcü et al., 2017; Ozturk & Guner, 2020). Pregnant women, who have additional concerns about protecting their own and their unborn babies' health, may feel these impacts particularly more during the COVID-19 pandemic (Ravaldi et al., 2020; Serafini et al., 2020; Wu et al., 2020). The COVID-19 pandemic, routine antenatal examinations or delivery may be difficult for pregnant women, which may further increase their psychological burden (Zhou et al., 2020). Also, all these processes, in which the concerns of pregnant women about vertical transmission are high, may lead to more psychological pressure and more complex psychological problems (Saccone et al., 2020; Zhou et al., 2020). Therefore, previous studies emphasized that more attention should be paid to the mental health of this special population (Zhou et al., 2020) and also, declared significantly higher levels of psychological distress, depression, and anxiety symptoms in pregnant women (Lebel et al., 2020; Parra-Saavedra et al., 2020). However, another study reported that pregnant women showed fewer symptoms of depression, anxiety, insomnia, and posttraumatic stress disorder (PTSD) compared to non-pregnant women during the COVID-19 pandemic, and they had a greater advantage in protection against mental illness (Zhou et al., 2020). Therefore, considering these different results in the literature, it was considered to examine the issue by

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making in-depth interviews to understand the impact of the COVID-19 pandemic on pregnant women and to plan preventive measures and interventions. Although the first COVID-19 case was detected in Turkey on 11 March 2020, there is still limited information on this issue. In this regard, the present study aimed to examine the experiences of pregnant women during the COVID-19 pandemic, and the impact of the pandemic on their stress, anxiety, and fear. It was also aimed to determine the coping methods used by them and examine their expectations for improving their psychological health within the framework of health-care services in Turkey.

Research questions

How has the COVID-19 pandemic affected pregnant women's physiological, social, and psychical health?

How has the COVID-19 pandemic changed their routine and daily life, and how have pregnant women coped with this situation?

Methods

Design

A qualitative study examined the lived experiences of pregnant women during the COVID-19 disease outbreak using the descriptive phenomenological design (Merleau-Ponty, 2002). Phenomenology focuses on lived experiences, aiming at describing, rather than explaining, how and why meanings arise without any researcher bias (Stephan & Finlay, 1999). Therefore, the descriptive phenomenological design was used in the present qualitative research to obtain a better understanding of the experiences of pregnant women during the COVID 19 pandemic. The research data were collected between 15 June 2020 and 15 August 2020. The participants of the study were selected using purposive sampling method based on the following selection criteria: being older than 18, being diagnosed with pregnancy at least two months ago (for selecting those who experienced the quarantine processes during pregnancy), and being a volunteer to participate in the study. Pregnant women were excluded who has been infected with COVID-19 disease, who didn't want to share their experiences and lives in cell-phone, who had serious maternal and fetal health problems.

Participants/sample

The sample of the study consists of primiparous and multiparous pregnant women over the age of 18, living in Turkey, speaking Turkish, not diagnosed with the COVID-19 disease. In order to get more detailed information about the phenomenon examined, it was tried to ensure diversity in terms of various socio-demographic characteristics (age, employment status), and gestational week while including the participants in the study. The mean age of the participants ($n = 30$) was 28.9 ± 4.9 years (age range: 20–38 years). Table 1 presents the socio-demographic characteristics of the participants.

The sample size of the qualitative research is dictated by considerations of data saturation where no new theme emerges from the interviews (Astroth & Chung, 2018). We reached the sample size to achieve data saturation. At the end of this process, in-depth interviews were conducted by researchers with a total of 30 pregnant women.

Measures

The study consisted of semi-structured in-depth qualitative interviews. The interview questions were determined using a semi-structured interview guideline prepared in line with the literature review. A total of 30 participants were selected by purposive sampling. In the beginning, the researchers created a post and an invitation message on social media for involving pregnant women. The researchers shared this invitation post with online pregnant women groups via social media. Social media groups were encouraged to share this invitation post with their members to increase the sample size. The researchers contacted the participants using only their secure contact details and instructions to schedule a qualitative interview via phone or video chat at a safe and convenient time determined by themselves.

Table 1
Sociodemographic characteristics of the participants ($n = 30$).

Characteristics	N (%) or Mean ± SD	Min-Max
Age	28.93 ± 4.984	20–38
Education level		
Primary Education	6 (20%)	
High School	6 (20%)	
Bachelor's Degree	16 (53.3%)	
Postgraduate Degree	2 (6.7%)	
Number of Previous Pregnancies	2.15 ± 1.406	1–5
Gestation Week	28 ± 8.78	16–39
Trimester		
Second Trimester	15 (50%)	
Third Trimester	15 (50%)	
Length of marriage (year)	5 ± 4.74	1–16
Family type		
Nuclear family	27 (90%)	
Extended family	3 (10%)	
Is it a planned pregnancy?		
Yes	19 (63.3%)	
No	11 (36.7%)	
Employment status		
Yes	8 (26.7%)	
No	17 (56.7%)	
On leave	1 (3.3%)	
Student	4 (13.3%)	

Data collection

The interviews were conducted by two researchers together. Also, probing questions were asked depending on the notes the researchers took during their communication. All women preferred to make the interview via phone call, and qualitative interviews were recorded during phone calls. These interviews lasted about 40 min (min: 33 min, maximum: 55 min).

Data analysis

The interviews were recorded, transcribed verbatim, and analyzed by thematic analyses using an inductive approach. We adopted the qualitative thematic analysis approach used by Burnard et al. (2008). The trustworthiness of this study was based on Lincoln and Guba's four criteria: credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985). First, the PI transcribed all the interviews, then the second researcher checked the accuracy of the transcripts to ensure trustworthiness (Graneheim & Lundman, 2004) as well as noting down initial ideas (Braun & Clarke, 2006). To ensure `credibility` by eliminating the interpretation of the researcher, two researchers (ÖG, RÖ) read six transcripts and analyzed them separately (Graneheim et al., 2017). After repeated reading by researchers, relevant segments were coded line by line using the MAXQUDA qualitative analysis software. Then, the data were further described and summarized using open coding which directly selected participants' own words from the transcripts; thus, the data were placed in similar subcategories and categories. Two researchers created a codebook after finishing the initial coding for six interviews separately. The researchers used axial coding processes on the combined data set and evaluated the conceptual similarities and differences. After confirming the coding reliability, the coding of the rest of the interviews was completed by the PI. Then, two researchers discussed and made a consensus for the new coding. With this critical approach, they reviewed the codes and also addressed the ones which contributed to noticing new or different categories and themes. Finally, the research team examined the codes and themes to

formulate the sub-themes and final themes. Moreover, another researcher, a specialist in qualitative analysis (SEG), took part in debriefing and discussing sessions about the codes/categories and themes to reduce research bias and ensure neutrality (or confirmability) in the study, and a consensus was achieved to decide on emerging themes (Astroth & Chung, 2018; Graneheim et al., 2017; Stans et al., 2018; Storlie et al., 2014).

Ethical considerations

Ethical approval for the research was obtained from The Regional Research Ethics Committee. Necessary permissions were also obtained from the Ministry of Health COVID-19 Scientific Research Evaluation Commission. The researcher also verbally informed the participant about her rights and received her consent regarding the interview before beginning the interview. Thus, informed consent was also recorded. All of the participants voluntarily participated in the study, none of the participants were coerced or manipulated to share their subjective experiences during the pandemic.

Results

Themes

The study consists of four themes as following: (a) measures taken against the pandemic, (b) problems regarding the antenatal period during the pandemic, (c) gestation period and change in social life, (d) psychological effects of the pandemic, and methods for coping with them. Table 2 presented data about each theme and sub-theme by addressing each theme separately.

Measures taken against the pandemic

Measures taken individually

The study revealed that pregnant women stated that they were attentive to stay at home during the quarantine period and limited their social activities. They went out for hospital follow-ups ($n = 28$) after the quarantine period, began to have controlled socialization such as grocery shopping for a short time and walking in non-crowded environments ($n = 15$). Most of the participants stated that they paid attention to social distance, wore masks and gloves, used disinfectants, and were attentive to wash their hands and other hygienic practices frequently.

Measures and care taken by healthcare professionals

Most of the participants ($n = 20$) stated that doctors and other healthcare professionals took measures of wearing masks and gloves and using disinfectant and social distancing, that the examination periods were standard and there were fewer patients. Most of the participants stated that they were satisfied with the healthcare services provided during the antenatal period and appreciated the efforts and services of the healthcare professionals.

Expectations related to the pandemic from healthcare professionals

The participants stated that their major expectations about the pandemic were information and consultancy regarding the COVID-19 disease, pregnancy, and prophylaxis methods, particularly postponing the follow-ups or reducing their number and frequency.

Problems regarding the antenatal period during the pandemic

Decrease in antenatal follow-up frequency or postponing follow-ups

While the majority of pregnant women were followed up regularly, 12 participants stated that they reduced the frequency of follow up as a result of postponing antenatal follow-ups and avoiding going to the hospital due to their fear and worry because of the pandemic. Therefore, three participants were found to experience problems due to late

Table 2
Themes identified through interviews with pregnancy.

Theme	Category	*Quotes
1. Measures taken against the pandemic	1.1 Measures Taken Individually	"…. I did not visit anyone… I did not accept anyone much… There were not many people coming and going…. there is no cuddling… I neither went to places where old people were, nor took my children… we really paid attention…. I don't know if it was enough but (P10)". "…. in terms of hygiene… we pay extra attention. When my wife comes home…. at home… she changes her clothes without touching any place and she sits like that… everything is washed, we take extra care for that… we go out, for example, we take a shower… my child… never wash… I don't let anyone touch anything at home (P9)".
	1.2. Measures and care taken by healthcare professionals	"… I did not see any deficiencies… they were taken to the ultrasound rooms one by one and they were disinfected one by one at that time… I was pleased… the employees were understanding this by communicating with us… being polite (P8)". "The hospital was careful about this…family practice center as well…they opened a polyclinic just for pregnant women. They did not take anybody except pregnant women into the room and they left half an hour cleaning interval between the appointments… (P3)".
	1.3. Expectations related to the pandemic from healthcare professionals	"…they could have given us a little more information about both pregnancy and this COVID… disease, what we should do, what we shouldn't do, so we would be a little more relaxed (P17)"." … we do not know where to go and where we should not go… I learn everything from the internet, for example, I ask everything on the internet… it would be good if there was a doctor to consult because there was so much information pollution on the internet." (P10)
2. Problems Regarding the Antenatal Period during Pandemic	2.1. Decrease in antenatal follow-up frequency or postponing follow-ups	". I couldn't get an appointment in those troubled days… I constantly stroke my paunch and examined movements… it was okay" (P20). "… my controls… I did not go for a long time, in a period of two or three months… due to the probability of getting infected in the hospital…

(*continued on next page*)

Table 2 (*continued*)

Theme	Category	*Quotes
		since I felt the movements of my baby… the doctor recommended me not go to hospital… (P24)".
	2.2. Problems regarding healthcare service and living area	"There are hundreds of women… not enough doctor… It's not enough for people… they know that the most needed is OB/GYN clinic in hospitals…. The doctor examines a patient in 5 min… You can't talk to your doctor comfortably, he/she says okay, don't talk, he silences you, you are already psychologically collapsed at that moment. You cannot ask the things in your mind and get an answer (P25)."
		"I went without an appointment. They didn't examine. It was my last week… my baby's movements slowed down for 2 days… We have only one or two obstetricians… There are restrictions between cities, I cannot go. You can even go to Erzurum or Van to be safe. In Van, it is said that COVID-19 is so widespread in Van. So, I'm panicked, I'm afraid, I can't go (P30)."
3. Gestation Period and Change in Social Life	3.1. Maintaining health-protective behaviors during pregnancy	"I started to eat more fruit and vegetables to boost my immune system (P22)."
		".. I could not do sports, I could not walk, I could not go out, we could not see a human face… Therefore, I put on weight… I ate more as I stayed at home, I ate and ate all the time… (P12)."
	3.2. Isolation due to the decrease in social life and support systems	"… Since I am a very social person… it was a bit of a problem for me… not being able to leave the house, not being able to do the activities I like at first, and not being able to get together with my friends is a very troublesome process." (P3)
		"… we are always at home… Now we could never go out… that's why it was very stressful (P28)."
	3.3. Changes in family processes and disruption of routines	"…Positively affected. He (husband)… presence gave me strength. I did not get bored… We both supported each other (P12)."
		"One is second grade, one is kindergarten, one is first class… while one of them has learned literacy completely, the other one will start the year one next year. Education challenged me the most (P10)."
	3.4. Change in Business Life	"…. I couldn't spend the day very active… the house is not like a workplace. Here I get up a little early in the morning for a couple of hours… maybe one or two hours in the evening… That is, work efficiency has decreased (P1)."
		"Since I am a civil servant, I can do my job on a computer… I conduct business from home (P11)."
4. Psychological effects of the pandemic and methods for coping with them	4.1. Negative Emotional experiences during pregnancy	"... if it gets infected with me, I was very worried about the young one and for the first boy, I was constantly in fear, so this is not a lie (P22)."
		"Depressed… You know, the fear of losing my baby, then the longing for the family… the rate of deaths increased or the incident increased… if something happens before seeing my baby… if something bad happens… if I lose it… it was too much… I relieved myself by crying…" (P29)
	4.2. Emotions regarding birth process	"... let's imagine I did not get sick and the birth took place and there was a… health worker with COVID-19 helping my delivery and my baby caught COVID-19 at the delivery, what would happen. I have no idea." (P1)
		"How will it end; how will it end… I always said this… until the birth… in July… until then, we will come and go in relief… well, if I am taken to cesarean section, if no companion is taken, how will I take care of myself all the worries…" (P10)
	4.3. Factors increasing/ reducing stress and anxiety	"There was more fear, and when I heard that my relative… got the virus, I was more scared…" (P13).
		"…When the number of deaths increased, it quite impressed me… I stopped watching television, I was not watching the news…" (P15)
		"We also see it on TVs… our healthcare provider… she is infected with the virus and she is pregnant… she passed away… it affected me a lot… I cried… I have worries" (P7)
	4.4. Coping Methods	"I was painting to cope with stress, I am going to a course, now I draw at home, I say so" (P11)
		"… We tried to do activities at home… we read books, watched a lot of movies… we tried to get through the process in some way" (P5)
	4.5. Psychological Support	"... I cried a lot during this pregnancy process, I would like to have a suggestion and support to find a solution to this… My mood was normal before but pregnancy and COVID process affected me a

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Table 2 (*continued*)

Theme	Category	*Quotes
		little… made things worse" (P14) "…I know that getting a call and support will comfort people a lot" (P3)

diagnosis of high-risk pregnancy complications such as preeclampsia, placenta previa, and gestational diabetes mellitus (GDM).

Problems regarding healthcare service and living area

In addition to concerns about the transmission of the contagious disease at hospitals, especially those living in rural areas stated that they had difficulties in making an appointment due to the insufficient number of doctors, rotation of doctors, not being informed sufficiently by the doctors, and having very limited examination time for antenatal follow-ups.

Gestation period and change in social life

Maintaining health-protective behaviors during pregnancy

Participants stated that they tried to practice health-protective behaviors in diets to ensure nutrition and improve their immunity during pregnancy. It was determined that the majority of pregnant women had a decline in their physical activity level, and many of them could not perform the desired activity level since they could not go out which cause them to put on weight higher compared to the month of pregnancy.

Isolation due to the decrease in social life and support systems

Pregnant women stated that they restricted their social life, especially during the pandemic, communicated with their relatives and friends by telephone, and the decrease in the support they received due to isolation led to feelings of distress and depression.

Changes in family processes and disruption of routines

Especially pregnant women with children stated that their workload increased because their spouses and children stayed at home, and that their children had extra difficulties in online classes, therefore they experienced psychological stress in their family processes. Few participants ($n = 3$) stated that they spent active time with their children during this period. The majority of the participants stated that they felt the support of their spouses the most during this period and were more attached in terms of emotional support.

Change in business life

The difficulties experienced by women in business life differed according to their individual and professional lives. Some participants stated that working from home professionally was more productive and also reduced their worries about getting an infection. On the other hand, women who have children or have jobs that require active participation stated that housework and working from home negatively affect their work performance and they cannot work actively. In addition, some participants evaluated being socially distant from business life and friends as a negative situation. On the other hand, participants working in the private sector complained about the continuation of their active business life, the difference in legal rights, and discrimination in the public sector.

Psychological effects of the pandemic and methods for coping with them

Negative emotional experiences during pregnancy

Almost all of the pregnant women stated that they were psychologically affected during this period. The participants expressed events such as fears of the transmission of the COVID-19 disease to themselves and their babies, concerns about the course of the disease and the fear of death, hospitalization, infecting their children/family elders, losing loved ones, being infected in the hospital during the delivery process, and the increase in cases.

Emotions regarding the birth process

The participants stated that they had concerns and fears about the delivery process since hospitals also served as pandemic hospitals, they had the fear of themselves and their babies being infected during delivery, the fear of being infected by healthcare professionals, as well as increase in cases more during the delivery process. One of the concerns of the pregnant women was the lack of people and mechanisms to provide postnatal support for themselves and their baby care.

Factors increasing/reducing stress and anxiety

Almost all of the pregnant women stated that they experienced high or low levels of stress regarding these processes. Having a COVID-19 positive relative, quarantine period, their spouses working actively or having risks due to their professions, experiencing pandemic-related income loss, going to hospital and follow-ups, problems experienced during antenatal follow-ups, watching the news about the COVID-19 disease, the uncertainty of the disease and the process, insufficient obedience to the rules with social normalization were stated as the factors that increased the anxiety of the participants. The fact that the pregnant women themselves and those around them complied with the rules as much as required, working from home, not meeting people, decrease in the number of cases and deaths, feeling the support of spouse and close friends, and beginning of the normalization process was stated as the factors that reduce their anxiety.

Coping methods

Pregnant women preferred the following activities as coping methods: interacting with and spending time with their family members, meeting with relatives and close friends, attending religious rituals and prayer, dealing with hobbies (listening to music, reading, resting, following social media, watching movies, knitting, painting, gardening), working and focusing on work, avoidance behaviors (avoiding thinking about the disease data, positive thinking), and doing sports (walking and making pilates).

Psychological support

Although almost all of the pregnant women stated that the pandemic and the process affected them psychologically, fewer participants stated that they needed and expected psychological counseling online or by telephone. Most of the participants declared that they needed more information and counseling regarding the "Pregnancy and the COVID-19 Disease" process and delivery.

Discussion

In this study, we examined pregnant women's experiences of the COVID-19 pandemic, including the challenges faced by pregnant women and their daily life activities to assess the psychological impacts of the pandemic. In the study from the results of the interviews, one of the remarkable concerns in the COVID-19 period is the disrupted continuity of antenatal follow-ups. Previous studies also revealed that pregnant women canceled their antenatal appointments due to their fear of being infected (Biviá-Roig et al., 2020; Lebel et al., 2020). Moreover, the fact that healthcare professionals serving pregnant women also worked in other clinics during the pandemic and changes in their working schedule led to restrictions in the number of personnel; thus, it led to a decrease in the quality of the service and an increase in the workload of the healthcare professionals in some regions (Sahin & Kabakci, 2021). It is known that it can be traumatic and increase the risk of perinatal stress, anxiety, and depression in those with a lack of antenatal control or

limited access to care (Sahin & Kabakci, 2021; Saccone et al., 2020). In the present study, some pregnant women stated that they experienced difficulties during antenatal follow-ups, they delayed follow-ups and avoided going to their appointments, the clinics were very busy and they had problems in making an appointment particularly in rural and small areas. In addition, canceled and delayed antenatal care may cause a delay in diagnosis when complications occur, which is the most serious case in terms of threatening maternal and fetal health. Similarly, three pregnant women in the study developed complications due to such delays. These findings reveal the need to clarify which routine visits should be made online or by phone if the number of antenatal follow-ups is reduced, and how appropriate care can be provided without exposing healthy pregnant women to the disease. Thus, minimizing disruptions of prenatal care, with effective use of telehealth appointments can reduce women's stress (Preis et al., 2020; Sahin & Kabakci, 2021). Also, the fact that the major expectations of the pregnant women from healthcare professionals were being informed and provided with follow-up counseling revealed that this need has not been met sufficiently. Therefore, regular communication with health care providers may help alleviate distress in pregnant women and result in better psychological well-being (Preis et al., 2020).

An important outcome of the study, due to individual and national measures during pandemic are taken how they have changed their daily healthy life routines and social lives of pregnant women that may result in isolation and insufficient social support. Due to travel restrictions and social distancing precautions, pregnant women could not meet with their families, and their social interactions decreased, so they felt lonely. Thus, the measures taken to protect health caused them to experience a difficult period. It is known that social support is necessary to increase resilience in times of crisis and that poor social support is associated with negative psychological consequences such as feeling lonely during the pandemic (Brooks et al., 2020). Previous studies revealed that the support of the pregnant woman's spouse, mother, other family members, and peers in the perinatal period had a significant effect on reducing stress, develop coping skills, preventing depression, adapting to new roles as a mother (Faramarzi & Pasha, 2015; Kim et al., 2014; McLeish & Redshaw, 2017). Similarly, in our study, the participants stated that their social lives were negatively affected and that their family elders could not visit them for providing social support, and this caused them to be worried about particularly the postpartum period. Besides all these, the majority of the participants stated that they felt the physical and emotional support of their spouses the most during this period, as well as their assistance in childcare. Our findings confirm that perceived partner support plays a critical role in the mental health of pregnant women as known from previous studies which became even more important in the pandemic (Tutnjević & Lakić, 2020; Matvienko-Sikar et al., 2021).

The results of the study also reveal how the changing work life with the pandemic affects the lives of pregnant women. The people began to work from home in line with the measures taken during the pandemic. Thus, it was observed that the working ecosystem has changed for people trying to adapt to the digital business model. Besides that, there were situations where family roles interfered with professional roles such as having too much workload in the family, conflicts, unclear roles and having sources of stress within the family (Dwivedi et al., 2020; Hill et al., 2001; Ratten, 2020). These changes in in-family processes exacerbate all the psychological effects of being pregnant (decreased social support, quarantine practices, etc.) during the COVID pandemic (Effati-Daryani et al., 2020; Yu et al., 2020). In the present study, the pregnant women stated that the difficulties they experienced in their business life varied according to their individual and professional life. The women who have children (need for online education and continuous care) or who had jobs that required active participation stated that doing housework and working from home negatively affected their work performance, their professional roles, and family roles. Therefore, the role conflicts experienced by some participants and the increase in their expectations revealed that the workload of pregnant women has increased.

In the present study, pregnant women emphasized that the coronavirus pandemic deeply affected their pregnancy processes, lives, and routines which might expose or aggravate their psychological problems. Women are particularly vulnerable during pregnancy. Previous studies reported that pregnant women experienced higher levels of psychological distress during an epidemic, resulting in an increased burden on mental health (Ayaz et al., 2020; Ceulemans et al., 2020; Parra-Saavedra et al., 2020). Although the prevalence of mental disorders in pregnant women is about 10%, it is stated that the prevalence of mental disorders, particularly anxiety and depression, has increased significantly during the COVID-19 pandemic (Ceulemans et al., 2020; Patabendige et al., 2020; Shahid et al., 2020; Zhang & Ma, 2020). In this study, pregnant women stated that they felt depressed, exhausted, tense, lonely, overwhelmed, and bored during this period. Almost all of the pregnant women stated that they were affected psychologically during the pandemic. They also expressed that the most common emotions were anxiety and fear and that they experienced more stress related to this.

In the study, another concern in pregnancy is that pregnant women experienced serious changes in their feelings about the delivery during the pandemic. Along with the normal fear of the delivery, they were concerned about the fear of getting infected, the health of the baby, and the care process. Besides their concerns about the hospital, they also stated that they felt sad due to the lack of attendant and support systems during the delivery and postpartum period. In their study, Ravaldi et al. (2020) also drew attention to similar changes, and they found that the fear of childbirth during the pandemic was not associated with anticipation, impatience, joy, and encounter, but with emotions such as sadness, suffering, inability, loneliness, and constriction. Since hospitals implemented restrictive measures to prevent transmission of the COVID-19 disease, pregnant women were admitted alone for the delivery. It was stated that being alone during the delivery could be a distressing, anxious, and stressful experience, especially for women with mental disorders. Also, the pandemic has changed the care of mothers and their babies seriously, such as the separation of the COVID-19 suspected/confirmed mothers from their babies and avoidance of breastfeeding. It is important that pregnant women have reliable assistants, including healthcare professionals and attendants in order to cope with stress and fear during the delivery and in the postpartum period (Ravaldi et al., 2020). Therefore, our findings indicate significant decreases in pregnant women's social support from all sources and women have the concerns about the lack of social support during birth and postpartum process. Providers should consider measures to support women to their psychological health (Matvienko-Sikar et al., 2021). Carefully monitoring the mothers' both physiological and psychological needs specific to this period, and reducing their anxieties and worries by informing the expectant mothers will make a positive contribution to the delivery process and the postpartum process.

Limitations

The study was conducted on a small group due to the nature of its qualitative research. While the study only covers a small number of women in one country, its strength is that their experiences can be shared with women in other countries, and the knowledge may apply globally to other healthcare professionals working in the field of women's health. Another limitation is that the visual cues could not be evaluated since the interviews were conducted on the phone.

Conclusion

The study findings ensured insight into how pregnant women are at risk of elevated psychological stress and fear and how their stress might be alleviated and support their psychological -well-being during the pandemic. Besides that, most of the women emphasized that they

expected more information and counseling support from healthcare professionals during pregnancy rather than psychological intervention. This finding also reveals that the difficulty experienced by pregnant women in accessing accurate and reliable information and healthcare professionals may get worse during the COVID-19 period, and therefore there may be an increase in psychological distress. In this study, the pregnant women were observed to postpone or cancel their antenatal follow-ups due to their concerns about getting infected at the hospital. To minimize this stress and anxiety, a system where healthcare professionals provide online and teleconsulting services can be established. Also, mental support and counseling should be provided within the framework of distance services in the antenatal and postnatal period.

Declaration of competing interest

No conflict of interest has been declared by the authors.

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Ethical approval

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