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STATE-TRAIT ANXIETY CONDITION AND ITS AFFECTING FACTORS IN PREGNANT WOMEN LINKED TO THE COVID-19 PANDEMIC

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SUMMARY

Background: *This study intends to address the COVID-19 pandemic process with specific regard to pregnant women, aiming to determine their state-trait anxiety levels.*

Subjects and methods: *The study has a quantitative design. Ethical permissions were obtained, data were collected digitally, and power analysis was performed for sample size. The sample size was calculated as 656 pregnant women. In the collection of the data, the Personal Information Form, and the State-Trait Anxiety Inventory (STAI) were used.*

Results: *In our study, the majority of pregnant women (86.3%) were concerned about the pandemic process, with more than half thinking that their pregnancy (62.9%) and delivery processes would be affected (66.2%). In the meantime, 60.2% of the pregnant women postponed their health checks and they indicated being most concerned about their babies (57.1%). In 51.2% of the pregnant women, the state anxiety levels were low, and 89.8% of the trait anxiety levels were moderate.*

Conclusions: *In crisis periods like the pandemic, pregnant women are among the priority groups. Screening, prevention, early diagnosis, and treatment of affective disorders in the prenatal period are important for maternal and fetal health.*

Key words: *COVID-19 – pregnant - anxiety*

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INTRODUCTION

COVID-19 caused by the coronavirus, a respiratory infection that occurred in Wuhan, China in December 2019. While in most people infected with COVID-19 the progress of the disease is mild or uncomplicated, about 14% have severe symptoms requiring hospitalization and oxygen support. Intensive care treatment is required for approximately 5% of hospitalized patients (Team NCPERE 2020). In severe cases of COVID-19, multiorgan failure is observed, including acute respiratory distress syndrome (ARDS), sepsis, septic shock, acute kidney, and heart damage (Yang et al. 2020). It has been reported in the literature that viral pneumonia is an important cause of morbidity and mortality among pregnant women (Zhu et al. 2020). Maternal pneumonia is associated with various negative obstetric outcomes such as premature rupture of the membrane (PROM), preterm delivery (PTL), intrauterine fetal death (IUFD), intrauterine growth retardation (IUGR), and neonatal death (Schwartz et al. 2020).

There are insufficient studies regarding care for COVID-19 diagnosed pregnant women both during pregnancy and the postpartum period. Also, there is no data on whether pregnant women present with different signs and symptoms, or a severe disease picture. Besides, the effects of the virus in the first and second trimesters are not exactly known. In the literature, it is reported that negative COVID-19 results have been obtained on amniotic fluid, cord blood, vaginal discharge, neonatal throat culture, or breast milk sample tests, suggesting that there might be no mother-to-baby contagion. Similarly, there is insufficient evidence for an increase in severe maternal or neonatal incidents, and it has been reported that infection is rare in the third trimester and there were cases of premature membrane rupture, fetal distress, preterm delivery (Zhu et al. 2020, Chen et al. 2020).

Another issue that is not clear yet is related to the temporary separation of infected mothers and newborns. According to the literature, children are rarely affected by COVID-19, but the risk level for newborns is largely unknown (Lu et al. 2020). Limited data show that SARS-CoV-2 is not transmitted through breast milk, but larger numbers are required for evidence-based conclusions (Chen et al. 2020).

Data from previous coronavirus types (SARS-CoV and MERS-CoV) suggest that pregnant women may be more at risk of severe disease, morbidity, or mortality compared to the general population. Currently, little is known regarding the effects of COVID-19 on pregnant women and infants. There are no recommendations specific to pregnant women regarding the assessment or management of COVID-19. The Center for Disease Control and Prevention (CDC) has published a guideline on breastfeeding in COVID-19 infection (CDC 2020). It is unclear whether COVID-19 can be transmitted by breast milk, but it is clear that an infected mother can transmit the disease through respiratory droplets during breastfeeding (Rasmussen et al. 2020).

In the guide published by the World Health Organization, it has been stated that pregnant women who are isolated due to possible or confirmed COVID-19 should receive a service including obstetric, fetal medicine, and neonatal care. In addition, it is recommended that pregnant women be treated with a holistic approach in which mental health is sustained through psychological support (WHO 2020). In this process, pregnant women should also be prepared and equipped for fetal/maternal complications that may develop (Özcan et al. 2020).

Although pregnancy is a natural physiological occurrence, it can cause stress in mothers and fathers. During pregnancy, stress levels remarkably increase as women are concerned about themselves and their babies. While all mothers and fathers dream of having a healthy baby, some risks may show up during pregnancy (Özbaşaran 2019, Dönmez et al. 2010). Especially during the COVID-19 pandemic period, pregnant women experience various psychological problems such as anxiety, fear, depression, and insomnia, alongside with physical problems (Li et al. 2020, Liu et al. 2020). Anxiety experienced during pregnancy is associated with conditions such as fear of death, sudden illness, not being able to see the baby, failure to deliver breastfeeding, or being unable to embrace the baby (Liang et al. 2020). The separation of COVID-19 diagnosed or suspected mothers from newborns result in the inability to breastfeed or establishing close contact with the baby affects early attachment and breastfeeding continuity. This situation inevitably causes furthermore stress and anxiety for mothers in the postpartum period (Chua et al. 2020).

This study intends to address the COVID-19 pandemic process with specific regard to pregnant women, to determine their state and trait anxiety and some characteristics affecting these conditions. It also aims to determine whether COVID-19 is associated with state-trait anxiety in pregnant women.

SUBJECTS AND METHODS

Type of research

The data of the study, which is quantitative and based on a general survey model, were collected between May 8, 2020 and May 15, 2020 by a descriptive cross-sectional approach. Since the COVID-19 outbreak became a global pandemic, Turkey also began to apply social isolation measures. Due to the restriction of interpersonal contact, data were collected in an internet-based digital environment.

Research Population and Sample

In the sample calculation, $n=t^2xs^2/d^2$ formula was used. The standard deviation value indicated in the study of Altay and Baltacı was taken as 7.28 (Altay et al. 2019). The same study was used for effect size and as a result of calculations, Cohen's d was found as 50.07-53.85/6.727955=0.561836. Accordingly, n=656 was obtained. Participation in the research was achieved through social media (Instagram, Facebook, Whatsapp, Twitter). Because all population is unknown, improbable and convenience sampling methods were used for the sake of swiftness and ease of data collection. Pregnant women were contacted and the study was conducted with those who provided consent forms.

Ethical considerations

In order to conduct the research, necessary approval was obtained from the Ministry of Health Scientific Research Platform and Gumushane University Scientific Research and Publication Ethics Committee. At the top of the research form, participants were provided information about the criteria of the Helsinki Declaration. The study was conducted with those who volunteered to participate.

Data Collection Tools

Personal Information Form

This form includes questions about various sociodemographic characteristics of pregnant women and their status regarding obstetric history and pregnancy.

State-Trait Anxiety Inventory

The scale consists of two components:

- State Anxiety Inventory: It defines how an individual feels at a certain moment and in a certain condition.
- Trait Anxiety Inventory: It defines how the individual generally feels.

State anxiety corresponds to a tension felt at a certain time and condition, and a temporary and short-term emotional state caused the stimulation of the autonomic nervous system. Trait anxiety is an individual difference and a continuous personality characteristic that occurs in anxiety tendency over time. The validity and reliability study of this scale was performed by Aydemir et al in 2000 (Aydemir et al. 2000).

Scoring

The scale is a 4-point Likert type (1- None, 2- A little, 3- A lot, 4- Completely). There are two kinds of expressions in the scale, (1) direct/straight and (2) reverse. In the state anxiety inventory, items 1, 2, 5, 8, 10, 11, 15, 16, 19, 20 are scored as 4, 3, 2, 1 (reverse scoring), and others are scored as 1, 2, 3, 4 (direct scoring). On the trait anxiety inventory, items 21, 26, 27, 30, 36, and 39 are scored as 4, 3, 2, 1 (reverse scoring), and others are scored as 1, 2, 3, 4 (direct scoring). While calculating the score obtained from the scale, the total score obtained in reverse is subtracted from the total score obtained for direct expressions. A fixed value of 50 for the State Anxiety Inventory and 35 for Trait Anxiety Inventory should be added to the number hence found. The final value obtained is the

individual's anxiety score. The anxiety level of the individual increases as the score obtained from the inventory increases.

Interpretation of scores

In the State-Trait Anxiety Inventory, 0-19 points are evaluated as 'No Anxiety', 20-39 points as 'Mild Anxiety', 40-59 points 'Moderate Anxiety', 60-79 points 'Severe Anxiety', 80 and above is evaluated as 'Panic' (Aydemir et al. 2000).

Statistical Evaluation

Data were evaluated with the SPSS-22 program, error checks, tables, and statistical analyzes were made. Number and percentage values were given in statistical evaluations. To estimate the quantitative data, multiple regression analysis, and logistic regression analysis with factorial ANOVA were performed. The statistical significance level was accepted as $p<0.05$.

RESULTS

The mean age of the pregnant women in the study is 27.81±4.84 (min-max=17-47). The education level of 58.6% of women and 51.9% of their spouses is an associate degree and above. 38.0% of the participants work, 48.2% are housewives, and 59.8% have income that is equal to their expenses. The mean age of marriage is 6.22±4.52 (min-max=1-27). The participants were asked to select between 1 (minimum) and 10 (maximum) for their "satisfaction with their relationship with their spouses," and the mean satisfaction level was found to be 8.40±1.6 (min-max=1-10). 53.7% of the participants stated that they had social support resources. 2.7% reported that they had a diagnosis of psychiatric illness and 7.3% reported smoking. In the obstetric histories of the participants, the mean number of pregnancies is 1.68±1.03 (min-max=0-8), that of births is 0.81±1.02 (min-max=0-8), stillbirths is 0.05±0.32 (min-max=0-4) and abortions was 0.12±0.39 (min-max=0-4).

Of the participants, 3.7% indicated that they got pregnant after treatment. 76.8% had planned pregnancy and 91.0% had regular health checks. 69.5% of the participants received training or information about pregnancy and birth processes. 42.4% stated that they received the information from health personnel. 26.5% of women reported that they had pregnancy problems, and 12.3% reported to have had a chronic disease. 62.9% of the pregnant women thought that the pandemic process may affect their pregnancy, 60.2% of them had to postpone their health checks, 6.9% changed their preferences of the delivery method due to the epidemic, and 66.2% had concerns that their birth process could be affected as a result of this epidemic.

Of the pregnant women, 86.3% had anxiety about the COVID-19 epidemic, 4.6% had relatives or acquaintances diagnosed with COVID-19, 44.1% received information and training on COVID-19, and its effects, 78.8% had concerns about the future. Among their reasons for concerns about the future are the health status of their babies (57.1%), their health (37.5%), the health of the society (53.0%), and other reasons (10.5%). Information sources of the participants about COVID-19 were the health personnel monitoring the pregnancy (10.5%), the Ministry of Health (26.5%), news (35.2%), and social media (26.9%). In terms of coping methods about the epidemic process, 36.7% of the participants indicated not following the news too much, 86.6% not going out of the house, 49.2% listening to music, reading books, meditating and doing sports and 3.3% stated that they did not feel the need to cope.

It was determined that there was no relationship between having a planned pregnancy and having regular health checks (χ^2=1.961, p=0.110), or having anxiety about the future (χ^2=0.527, p=0.272), or present anxiety about the COVID-19 pandemic (χ^2=0.002, p=0.531).

It was also determined that anxiety about the COVID-19 pandemic was higher among participants with higher education level (χ^2=10.545, p=0.014) and those who are unemployed (χ^2=18.135, p=0.000). In addition, unemployed participants continued their health checks more regularly (χ^2=18.818, p=0.000). The distribution of the State-Trait Anxiety Inventory scores of pregnant women is shown in Table 1.

Table 1. Distribution of the State-Trait Anxiety Inventory scores (N = 656)

State-Trait Anxiety Inventory	n	%
State Anxiety Level: 39.78±5.32 (min-max=26-58)		
Mild anxiety	336	51.2
Moderate anxiety	320	48.8
Trait Anxiety Level: 51.52±5.84 (min-max=35-78)		
Mild anxiety	11	1.7
Moderate anxiety	589	89.8
Severe anxiety	56	8.5

In about half of the pregnant women (51.2%), the state anxiety levels are mild and in the vast majority (89.8%) the trait anxiety levels are moderate.

Factors affecting the anxiety levels of pregnant women during the COVID-19 pandemic were evaluated, and it was observed that trait anxiety levels were significantly higher in women who thought that their pregnancy and birth would be affected and who were concerned about the pandemic and the future ($p<0.05$). State anxiety levels were also high in pregnant women with anxiety about the future ($p<0.05$) (Table 2).

In this research, it has been observed that there was no distribution that makes a statistically significant difference ($p>0.05$) between the anxiety levels of pregnant women, and the variables of age, employment status, education level of the participant and the spouse, income level, profession, smoking habit, presence of chronic disease, pregnancy phase, planned or unplanned pregnancy, type of conception, presence of social support, information acquired on pregnancy and birth.

Table 2. Comparison of anxiety levels of pregnant women according to some characteristics (N=656)

	State Anxiety Level		Trait Anxiety Level	
	Median (95% CI)	Test Value	Median (95% CI)	Test Value
Education status				
Primary-secondary	38.00 (37.24-39.79)	KW = 7.273	51.00 (49.91-52.98)	KW= 3.714
High school	39.00 (39.16-40.72)	p = 0.64	51.00 (51.05-52.76)	p= 0.294
Associate degree	40.00 (39.29-40.88)		51.00 (50.10-51.79)	
Undergraduate/ graduate	39.00 (39.20-40.56)		52.00 (50.91-52.38)	
Income status				
Low income	39.00 (38.79-40.69)	KW = 3.073	51.00 (50.93-53.12)	KW= 0.834
Normal income	39.00 (39.11-40.16)	p = 0.215	51.00 (50.93-52.04)	p= 0.659
More income	40.00 (39.37-41.15)		51.00 (50.06-52.15)	
Gestational week				
First trimester	40.00 (38.89-41.27)	KW= 1.146	52.00 (50.15-52.60)	KW= 0.298
Second trimester	39.00 (38.80-40.29)	p = 0.564	51.00 (50.68-52.30)	p= 0.862
Third trimester	39.00 (39.05-40.31)		51.00 (50.86-52.26)	
Planning status of my pregnancy				
Planned pregnancy	39.00 (39.39-40.32)	U= 6550.500	51.00 (50.91-51.92)	U=37518.000
Unplanned pregnancy	39.00 (38.66-40.39)	p = 0.391	51.00 (50.89-52.84)	p= 0. 701
Presence of someone providing social support				
Yes	40.00 (39.47-40.54)	U=49598.500	51.00 (50.96-52.07)	U=52402.000
No	39.00 (38.89-40.14)	p= 0.106	51.00 (50.81-52.25)	p= 0.648
Thinking that the pandemic process may affect pregnancy				
Yes	39.00 (39.18-40.20)	U=49372.500	52.00 (51.45-52.57)	U=43700.500
No	39.00 (39.24-40.61)	p= 0.877	51.00 (49.96-51.45)	*p= 0.009*
Postpone their health checks due to the pandemic				
Yes	39.00 (38.94-39.94)	U= 7899.000	51.00 (51.18-52.33)	U=48952.500
No	40.00 (39.59-40.98)	p= 0.124	51.00 (50.46-51.92)	p= 0.274
Thinking that the birth process could be affected due to the pandemic				
Yes	39.00 (39.04-39.99)	U=45368.500	52.00 (51.39-52.44)	U=42477.000
No	39.50 (39.52-41.07)	p= 0.221	51.00 (49.92-51.60)	*p= 0.013*
Anxiety-related to the pandemic				
Yes	39.00 (39.39-40.27)	U=24158.000	51.00 (51.34-52.30)	U=19922.500
No	39.00 (38.29-40.60)	p= 0.431	49.00 (48.42-50.94)	*p= 0.001*
Anxiety about the future				
Yes	39.00 (39.09-39.99)	U=32058.000	52.00 (51.39-52.40)	U=29044.500
No	40.00 (39.70-41.64)	*p= 0.050*	50.00 (49.21-51.11)	*p= 0.001*

As seen in Table 3, the number of pregnancies of pregnant women was found to be negatively correlated with both state anxiety ($p<0.05$) and trait anxiety ($p<0.01$) scores. In addition, a negative correlation was determined between the number of children and the trait anxiety score ($p<0.05$).

Logistic regression analysis results on whether pregnancy during the COVID-19 pandemic has an impact on pregnant women's anxiety about the future are shown in Table 4. As can be seen, the anxiety condition, trait anxiety score, and state anxiety score variables related to the COVID-19 pandemic affect anxiety about the future, being independent of each other ($p<0.05$). For each one-unit increase in the level of anxiety about the future, anxiety condition related to the COVID-19 pandemic was found to be 6.137 times effective, trait anxiety score was 1.102 times effective, and state anxiety score was 0.9 times effective ($p<0.05$).

DISCUSSION

The importance of maintaining the antenatal services of pregnant women in a controlled manner in the health system is undeniable. Pregnant women should go to the hospital for routine health checks during the prenatal period. This is especially more important and necessary during the pandemic process. It is reported that the COVID-19 pandemic has significant psychological effects on mental health, and depression and anxiety are particularly common (Özcan et al. 2020). The purpose of this research is to describe the pandemic process with regard to pregnant women, to address their concerns about their condition and the pandemic process with respect to their "descriptive characteristics," to uncover the affecting factors and to determine whether the state and trait anxieties related to the pandemic are correlated. It is obvious that controlling health anxiety within the scope of pandemic management is an effective factor in the success of public health strategies (Taylor 2004).

Table 3. Correlation values of anxiety levels of pregnant women according to some characteristics (N=656)

		Age	Gestational week	Number of pregnancy	Number of children	Satisfaction with a relationship with the spouse
State Anxiety Level	*r*	0.000	-0.025	*-0.100**	-0.032	0.071
	p	0.994	0.560	*0.011*	0.409	0.071
Trait Anxiety Level	*r*	-0.043	-0.003	*-0.130***	*-0.099**	0.043
	p	0.276	0.938	*0.001*	*0.011*	0.277

r= Correlation test, p<0.05

Table 4. Factors Affecting Pregnant Women's Perception of Anxiety about the Future*

Variables	β	p	OR	95% GA
Age (Numerical)	0.004	0.897	1.004	0.948-1.063
State score (Numerical)	0.106	*0.001*	*0.900*	0.858-.944
Continuity score (Numerical)	0.097	*0.001*	*1.102*	1.050-1.157
Pregnancy week (Numerical)	0.011	0.350	1.011	0.988-1.036
Number of stillbirths (Numerical)	-0.443	0.492	0.642	0.181-2.274
Low number (Numerical)	-0.097	0.721	0.907	0.532-1.548
Curettage number (Numerical)	0.434	0.347	1.544	0.625-3.815
Number of Living Children (Numerical)	-0.092	0.214	0.912	0.788-1.055
The score he gives to his wife (Numerical)	-0.106	0.205	0.899	0.763-1.060
Working status				
Working			1.000	
Not working	-0.159	0.549	0.853	0.507-1.434
Income level perception				
Low income		0.154	1.000	
Normal income	0-.403	0.239	0.668	0.342-1.308
More income	-0.773	0.055	0.461	0.210-1.016
Having social support				
Yes			1.000	
No	0.378	0.138	1.460.9	0.885-2.408
How to Pregnant				
Normally			1.000	
With treatment	-0.241	0.701	0.786	0.230-2.688
Is pregnancy planned?				
Yes			1.000	
No	-0.165	0.578	0.848	0.473-1.518
Anxiety related to COVID-19 pandemic				
Yes			1.000	
No	1.814	*0.001*	*6.137*	3.388-11.119

*Nagelkerke R Square= 0.217

In this study, most of the pregnant women (86.3%) had anxiety about the pandemic process. More than half of the participants thought that their pregnancy (62.9%) and birth (66.2%) might be affected by the pandemic process. Besides, in that period, 60.2% of pregnant women postponed their health checks. It is reported that in Canada during the SARS outbreak in 2002-2003, separate facilities were used for the care and birth of healthy pregnant women (Owolabi 2004). In this regard, during the pandemic, it is important to ensure the control of pregnant women in isolated units, to provide appropriate counseling and to control anxiety, in order to manage the process successfully.

In this study, it was determined that some socioeconomic characteristics of pregnant women did not cause any differentiation in terms of distribution on anxiety states. In the study conducted by Ejder, it was stated that the anxiety occurring in risky interventions such as amniocentesis applied to pregnant women is not correlated with sociodemographic characteristics (Ejder 2007). As known, risky conditions or interventions occurring during pregnancy generally increase the anxiety levels of pregnant women. Anxiety creates risks both for the health of the mother and of the fetus. Therefore, the determination of socio-demographic characteristics in controlling anxiety levels is important for modifiable interventions. Our study has shown that the anxiety occurred in pregnant women independent of socioeconomic factors. In sum, anxiety in pregnant women during the pandemic process is not affected by socioeconomic factors.

COVID-19 infection is a rapidly spreading pandemic causing a global health crisis. It has been emphasized that during this process false information increases fear and anxiety, meaning that it is very important to obtain correct information from reliable sources (Wang et al. 2020). In this study, it was indicated that the information sources of pregnant women about COVID-19 were TV news, social media, online information provided by the Ministry of Health and healthcare personnel monitoring the pregnancy. Another study has also shown that pregnant women obtained information about the pandemic from TV news (80.3%), websites (63.4%), and mobile news applications (49.3%) (Corbett et al. 2020). It is very important, especially for pregnant women to avoid fear, panic, and uncertainty in order to cope with the pandemic process. The access to correct information, the monitoring and informing of pregnant women, and the inclusion of information about pregnancy in news content is particularly critical in that respect. It is considered that preventing information pollution that causes panic in pregnant women and obtaining target-specific information will reduce the anxiety of pregnant women.

In the study of Corbett et al. investigating the anxiety condition and information sources of pregnant women in the 2nd and 3rd trimesters during the COVID-19 pandemic process, 16.9% of the participants were concerned about their health, 63.4% of them were concerned about their babies and 50.7% of the pregnant women were constantly worried about their health. It was also indicated that, whereas pregnant women were least concerned about themselves, more than half of them had significant health concerns (Corbett et al. 2020). In this study, it was determined that the health status of their babies (57.1%) and the health of the society (53.0%) were among the foremost reasons for anxiety about the future, and the participants indicated the anxiety about to their health (37.5%) as being in the last place. The findings of the study are in line with the literature, and it is seen that the factor that causes pregnant women to experience the most anxiety is the health of their babies. It seems likely that the reason for this rate to be around 50% is due to the low number of positive cases in newborns.

In the study, the state anxiety was mild in approximately half of the pregnant women, and in the vast majority, the trait anxiety was moderate. Depression and anxiety disorders are frequently observed during pregnancy and postpartum periods (Villar-Loubet et al. 2014). There is evidence that maternal stress, depression, and anxiety during pregnancy have adverse neurodevelopmental effects on the fetus (Beydoun et al. 2008). In researche using animal models, it was observed that the level of stress in the mother negatively affects learning, motor development, and behavior in the offspring in the long term. Evidence suggests that it has effects on the development of the nervous system of the fetus and the changes in the functioning of the maternal and fetal hypothalamic-pituitary-adrenal axes (Coe et al. 2008). It has been shown that maternal mood disorders activate the maternal pituitary-adrenal-axis and, in turn, programs the physiology and the pituitary-adrenal axis the fetus (Charil et al. 2010, Glover et al. 2009). In summary, the mother's exposure to stress and her emotional state during pregnancy can have important consequences for the development and health of the child (Beydoun et al. 2008, Kinsella et al. 2009, Weinstock 2008). It is important to reduce anxiety levels, especially in pregnant women during this pandemic which threatens the whole world. In order to manage the process in a controlled and successful way, pregnant women should be recommended on coping methods. Our study has shown that the state anxiety of pregnant women was mild. The reason for this has been linked to the coping methods used by the participants. The most important factor in preventing the spread of the disease is isolation measures. In our study, the vast majority of pregnant women (86.6%) do not go out of their houses, about half of them use coping methods such as listening to music, reading books, doing sports, meditating, and approximately a third (36.7%) do not watch the news much in order to avoid stress. Coping methods against anxiety are important for maternal and fetal health and are recommended to pregnant women during the epidemic process.

In general, anxiety levels increase with risky situations during pregnancy. Due to uncertainties in the pandemic process and its extended run, trait anxiety levels are high in pregnant women. Because scientific evidence for maternal and fetal effects of the COVID-19 pandemic is still insufficient. The pandemic process, which also poses a risk for pregnancy, increases women's anxiety. In a study conducted with pregnant women during the pandemic process, it was stated that healthcare professionals should not only care about the physical well-being of pregnant women but also pay attention to their mental health and provide the appropriate support against anxiety (Chen et al. 2020).

The number of pregnancies and children are important factors affecting the anxiety level in pregnant women. Anxiety is lower in women with a higher number of pregnancies. In a study investigating the causes of anxiety in pregnant women during the pandemic process, it was reported that pregnant women mostly worry about their elderly relatives, their children at home, and then their unborn babies (Corbett et al. 2020). Having another child at home also affects anxiety. This shows us that expectant mothers who experience pregnancy for the first time are more anxious.

CONCLUSION

In terms of maternal and fetal health, it is important for health professionals to screen pregnant women with regard to mood disorders, to establish prevention

programs, and to provide early diagnosis and treatment. Anxiety during pregnancy has serious effects, especially on fetal health. Within the scope of social isolation instructions issued by governments during the pandemic process, pregnant women should also be supported in terms of protective measures. During the COVID-19 pandemic, pregnant women should be provided with accurate and up-to-date information, alongside support for routine health checks, and monitoring for psychological symptoms such as depression and anxiety. In order to maintain maternal and fetal health, it is recommended to ensure access to reliable news sources, to improve coping methods, and to establish special policies for pregnant women, such as the establishment of separate isolated facilities for care and childbirth, to control the pregnancy process.

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Contribution of individual authors:

Handan Özcan, Ayşe Elkoca & Çağla Yiğitbaş: study design, data collection, first draft, statistical analysis.

Yasemin Aydin Kartal: study design, data collection.

All authors approval of the final version.

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