Original Article

Pregnancy and Anxiety in the COVID-19 Pandemic: A Comparative Web-Based Study

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Abstract
Background: Anxiety during pregnancy can be affected by the COVID-19 pandemic, socio-demographic and obstetric characteristics of the pregnant woman. Pregnant women may experience some concerns about the pregnancy and delivery process.
Aim: This study was conducted to compare risk factors and anxiety outcomes in primigravidas with and without COVID-19(+) during pregnancy.
Methodology: The research designed in a cross-section and comparative type; In Turkey, it was carried out between 1 February date April 1, 2021. 544 pregnant women (97 of whom were COVID-19(+); 447 of whom were COVID-19(-)) participated in the study.
Results: Of the pregnant women in this study, 17.8% were found to have diagnosed with COVID-19(+). It was determined that the mean pregnancy anxiety scores of women with COVID-19(+) were significantly higher ($p<0.05$). As a result of the regression analysis model created with demographic and obstetric variables to determine the risk factors for COVID-19(+) diagnosis; working in the private sector, smoking, having an unplanned pregnancy, the presence of individuals diagnosed with COVID-19(+) around him and the reason for preference in determining the place of birth variables were found to be important determinants in the diagnosis of COVID-19(+) in pregnant women. It was determined that being COVID-19(+) is also an important determinant in the worries about bearing a handicapped in pregnant women.
Conclusion: This study provides insight into the socio-demographic and obstetric characteristics of pregnant women with COVID-19(+) and their anxiety levels following the with COVID-19 after. The results can provide information on future interventions to support pregnant women diagnosed with COVID-19(+) during the epidemic.

Keywords: COVID-19, coronavirus, pregnancy, anxiety.

Introduction

The new coronavirus disease (COVID-19) caused by SARS-CoV-2 emerged in the Wuhan province of China in December 2019 and subsequently spread to many countries (NIH, 2020). The World Health Organization addressed COVID-19 infection as a pandemic in March 2020 (WHO, 2019; WHO, 2020). The virus still affects large populations in various aspects such as psychological, social, political and economic, and has not yet been fully controlled (Hui et al., 2020). COVID-19 is transmitted by close contact and droplets. Both its rapid spread and its ability to progress to a fatal picture draw attention to the seriousness of the situation (Aydin et al., 2020; Blakey & Abramowitz, 2017). Although it has been stated that the prevalence and clinical symptoms of the disease do not differ between pregnant and non-pregnant women of reproductive age, there is no clear information about its effects on pregnant women (Zhelezov et al., 2020; Ozcan et al., 2020). However, studies conducted during

previous similar epidemics (SARS and MERS) have shown that pregnant women are more likely to be affected psychologically (Schwartz & Graham, 2020). In addition, although it is accepted as a critical and stressful stage in the lives of all individuals, individuals who have had the disease experience more psychological distress than those who have not had the disease (Jeong et al., 2016). Normally, the thought that something can go wrong with hormonal changes during pregnancy creates a heavy burden on pregnant women and increases their anxiety levels. The thought of being in the risk group of pregnant women due to the COVID-19 pandemic further increases their anxiety levels during pregnancy (Demir & Kilic, 2020). In the study examining the stress levels of pregnant women with SARS infection, it was reported that mothers experienced negative emotions, sleep problems and disappointment during their pregnancy. In another study, stress and depression levels of pregnant women were found to be higher in the SARS pandemic (Dodgson et al., 2010; Li et al., 2020; Liu et al., 2020).

In pandemics and infections during pregnancy, women experience some concerns about the pregnancy and delivery process. (Aydin et al., 2020; Blakey & Abramowitz, 2017). During pregnancy; Women experience stress due to follow-up, delivery planning, delivery method, routine examinations during pregnancy and postpartum follow-up. Whether women are admitted to the delivery room with their attendants who will be with them during the birth may cause an increase in anxiety about the birth process (Brooks et al., 2020). In addition, it has been reported that pregnancies are not planned in cases with COVID-19 during pregnancy and the frequency of cesarean section increases (Dubey et al., 2020; Knight et al., 2020). Whether COVID-19 increases the risk of miscarriage and stillbirth is still unknown (Liang & Acharya, 2020). However, the COVID-19 outbreak also causes pregnant women to fear having an unhealthy baby. Pregnant women are afraid of miscarriage, stillbirth, and having a disabled baby (Spiniello et al., 2020). In a study conducted to determine the factors affecting the anxiety levels of pregnant women, it was determined that the fear of transmitting an existing infection to the baby, the worry that the baby's health would be negatively affected, and the fear of stillbirth increased the anxiety levels of pregnant women (Melender, 2002).

As a result, during the COVID-19 pandemic process, the anxiety of pregnant women for both their own health and the health of their babies is increasing exponentially. These psychological reactions can cause adverse birth outcomes such as miscarriage / premature birth, low birth weight, and fetal death (Capar et al., 2020). Knowing the effect of COVID-19 on the psychology of pregnant women can provide the planning of early psychological interventions. Therefore, this study aimed to compare the risk factors and anxiety outcomes in primigravidas with and without COVID-19 (+) during pregnancy.

Method

Research Design and Sample: The research designed in a cross-section and comparative type; In Turkey, it was carried out between 1 February dates April 1, 2021. Data were collected using a web-based online survey via groups of pregnant women on social media (such as Facebook, Instagram). The research questionnaires were developed using the Google forms application (Google LLC, Mountain View, CA, USA) and the link of the surveys was shared with pregnant women on social media. The first page of the online questionnaire included information about the purpose and content of the study and a consent form to participate in the study. Pregnant women who approved to participate in the study and met the inclusion criteria were included in the study. The criteria for inclusion in the study are primigravida at the data collection stage, have a healthy fetus, have no health problems during pregnancy (such as a chronic disease, gestational diabetes, eclampsia and preeclampsia), no psychiatric diagnosis, no problem in communicating, and a smartphone. 588 replies were obtained from online surveys. Incomplete, incomplete, or incorrectly coded questionnaires were identified and the questionnaire forms of 44 participants were excluded from the evaluation because they were deemed invalid. Thus, a total of 544 primigravidas constituted the sample of the study. After collecting the data in the study, pregnant women were divided into 2 groups as with and without COVID-19 (+), according to the status of having had COVID-19 during pregnancy.

There were 97 pregnant women in the group with COVID-19 (+) and 447 pregnant in the group with COVID-19 (-), and the data obtained from the 2 groups were compared.

Data Collection Tools: Data were collected using the Introductory Information Form and Pregnancy-Related Anxiety Questionnaire-Revised 2 (PRAQ-R2).

Introductory Information Form: This form was prepared by the researchers to determine some individual characteristics of pregnant women. In this form, whether women have some socio-demographic (age, education level, occupation, etc.), obstetric (planned pregnancy, desired delivery type, week of gestation) and questions that determine the current situations related to COVID-19 (whether there is COVID-19(+), whether close friends/relatives are COVID-19(+), the desired birth type if there is no pandemic process, the desire for a home birth if there is no pandemic process, etc.) takes.

Pregnancy-Related Anxiety Questionnaire-Revised 2 (PRAQ-R2): Pregnancy-Related Anxiety Scale was developed by Van den Bergh (1990) and revised by Huizink et al in 2016 to be applied to all pregnant women regardless of its parity (Huizink et al., 2016). This scale, originally named "Pregnancy-Related Anxiety Questionnaire-Revised-2", is a 5-point Likert-type scale developed to question the level of anxiety women experience regarding their pregnancy. The Turkish validity and reliability study of the scale was conducted by Aksoy Derya et al. in 2018. The Turkish form consists of 10 questions for multipara and 11 questions for primipara. The scale includes "fear of giving birth (1, 2, 6 and 8 items)", "worries about bearing a handicapped child (4, 9, 10 and 11)" and "concern about own appearance (3, 5 and 7). It has 3 sub-dimensions, namely. Item 8 in the scale (I am worried about delivery because I have never had birth experience before) is used for women who have not given birth before and not multiparous women. The items are scored between 1 and 5 (1-Absolutely not relevant and 5-Very relevant) and a minimum of 11 and a maximum of questionnaire, and their personal information would be protected.

By applying to the Ministry of Health General Directorate of Health Services Scientific Research Platform, the study was approved by the Ministry of Health electronically on January 31, 2021.

55 points on the scale for primiparous, and a minimum of 10 and a maximum of 50 points for multiparous. It is accepted that the higher the score obtained from the scale, the higher the anxiety level during pregnancy. All statements in the scale are positive. The scale has no cut-off point. The cronbah alpha coefficient of the scale was found to be 0.81 in multipara and 0.87 in primipara (Derya et al. 2018). In this study, the Cronbach alpha coefficient was found to be 0.83.

Statistical analysis: The data of the study were evaluated with SPSS 25.0 for Windows software (SPSS, Chicago, II, USA). Descriptive statistics are given as numbers, percentages. Chi-square test was used to compare categorical independent variables of women. In the evaluation of continuous data, firstly, whether the variables meet the condition of showing normal distribution was investigated with the Kolmogorov-Smirnov test. As the data showed normal distribution, independent groups t-test was used for comparisons of two groups. The variables that affect the diagnosis of COVID-19(+) in pregnant women were evaluated by logistic regression analysis. When determining the variables to be included in the regression model, variables ($p<0.05$) that had a significant relationship with the diagnosis of COVID-19(+) were included in the model. In this regard, pregnant women are pregnant with age, education, job, smoking, planned pregnancy, presence of COVID-19 in the environment, desired birth type, desired birth type without pandemic period, desire to give birth at home, desire to give birth at home if there is no pandemic process and preference for determining the place of birth variables of the anxiety scale sub-dimensions were included in the regression model. Statistical significance was set at $p<0.05$.

Ethical considerations: Ethical approval was obtained from the Health Sciences Non-Interventional Clinical Research and Publication Ethics Committee before collecting the data (Decision No: 2021/1487). It was stated that all pregnant women participating in the study were informed about the research on the first page of the

Results

A total of 544 pregnant women participated in the study, and the distribution according to their socio-demographic characteristics and the comparison of their socio-demographic characteristics with the

status of being diagnosed with COVID-19 (+) are given in Table 1. It was determined that 17.8% of the pregnant women included in the study were diagnosed with COVID-19 (+) and 82.2% of them were not diagnosed with COVID-19 (+). The average age of the pregnant women was determined as 27.78 ± 5.62. 56.8% of pregnant women are 26 years and above, 71.9% are high school graduates, 59.6% are working in the private sector, 69.1% are equal to their expenses, 82.5% do not smoke, 75.9% are planned have a pregnancy, 78.5% of the III. trimester, 82.2% of them were not diagnosed with COVID-19 (+), but around 53.3% had relatives diagnosed with COVID-19 (+), 65.3% wanted a vaginal delivery, 51.8% had cesarean delivery without the pandemic period. 72.8% of them wanted to give birth at home, 82% did not want to give birth at home unless there was a pandemic and 84.9% found their homes cleaner and safer (Table 1).

When pregnant women with and without COVID-19 (+) were compared; Among the groups in terms of age, education, profession, smoking status, having a planned pregnancy, presence of COVID-19 (+) in the environment, Requested type of birth, Without a pandemic the requested birth type, Wanting to give birth at home, Without a pandemic the wanting to A statistically significant difference was found between the groups in terms of giving birth at home and Preference for determining the place of birth ($p < 0.05$). It was determined that there was no statistically significant difference between income level and trimester and being COVID-19(+) ($p > 0.05$) (Table 1).

The comparison of the mean scores obtained from the Pregnancy-Related Anxiety Questionnaire (PRAQ-R2) total and sub-dimensions of pregnant women according to their status of being COVID-19(+) is presented in Table 3. It was determined that pregnant women with COVID-19(+) had higher PRAQ-R2 total and sub-dimension mean scores. It was determined that pregnant women diagnosed with COVID-19(+) experienced more fear of giving birth to children, worries about bearing a handicapped and Concern about their own appearance, their pregnancy anxiety levels were also higher and the difference between the groups was statistically significant ($p < 0.05$).

Table 3 shows regression analysis with demographic and obstetric variables of being COVID-19 in pregnant women. Considering the significance tests of the regression coefficients; working in the private sector (OR = -0.071), smoking (OR = 6.729), having an unplanned pregnancy (0R = 0.002), the presence of COVID-19 (+) in the environment (OR = 18.492), and preference for determining the place of birth (OR = 0.022) variables were determined to be important determinants of being COVID-19 (+) in primiparous pregnant women.

Table 4 shows the Regression analysis with the Pregnancy-Related Anxiety Questionnaire of being COVID-19 in pregnant women. Considering the significance tests of the regression coefficients; It was observed that being diagnosed with COVID-19(+) was an important determinant of fear of having a disabled child in primipara pregnant women (OR = 0.895).

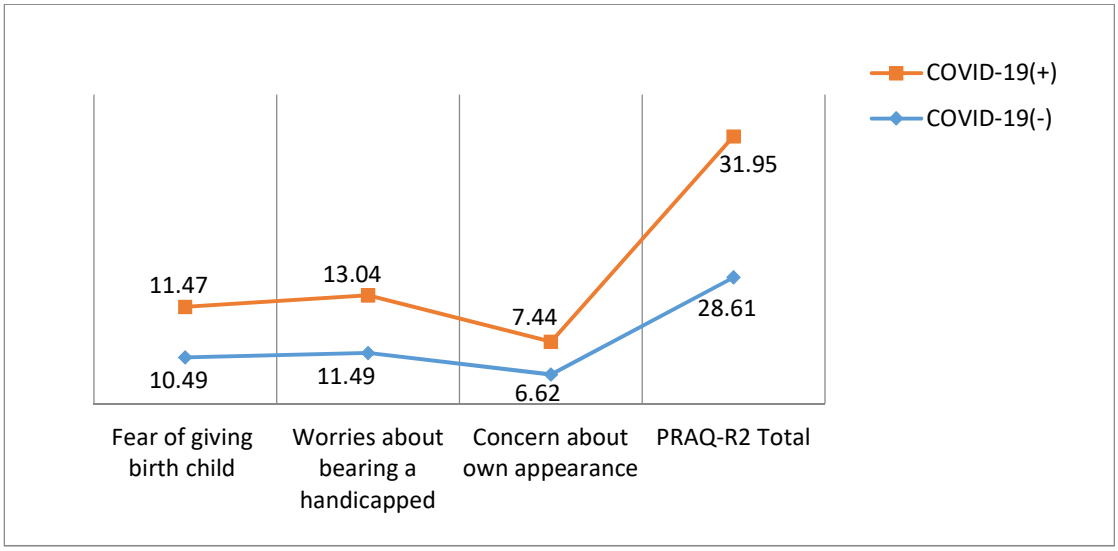
Table 1. Comparison of the socio-demographic characteristics of pregnant women according to their status of being COVID-19 (+) (n=544)

Variables	COVID-19 (+) (n=97)		COVID-19(-) (n=447)		Total (n=544)		Test and *p* value
	n	%	n	%	n	%	
Age (year) (Mean.± SD)	29.44 ± 5.35		27.42 ± 5.62		27.78 ± 5.62		
Age (y)							
≤25	26	11.1	209	88.9	235	43.2	χ^2=12.931
≥26	71	23.0	238	77.0	309	56.8	***p*<0.001**
Education level							
≤Secondary school	45	11.5	346	88.5	391	71.9	χ^2=37.923
≥High school	52	34.0	101	66.0	153	28.1	***p*<0.001**
Job							
Officer	7	11.9	52	88.1	59	40.4	χ^2=23.178
Private sector	44	50.6	43	49.4	87	59.6	***p*<0.001**
Level of income							
High	20	18.9	86	81.1	106	19.5	χ^2=4.560
Middle	72	19.1	304	80.9	376	69.1	*p*=0.102
Low	5	8.1	57	91.9	62	11.4	
Smoking							
Yes	48	50.5	47	49.5	95	17.5	χ^2=83.979
No	49	10.9	400	89.1	449	82.5	***p*<0.001**
Planned pregnancy							
Yes	34	8.2	379	91.8	413	75.9	χ^2=107.844
No	63	48.1	68	51.9	131	24.1	***p*<0.001**
Trimester							
I. Trimester	10	19.6	41	80.4	51	9.4	χ^2=3.929
II. Trimester	6	9.1	60	90.9	66	12.1	*p*=0.140
III. Trimester	81	19.0	346	81.0	427	78.5	
Presence of COVID-19 (+) in the environment							
Yes	79	31.1	175	68.9	254	46.7	χ^2=57.279
No	18	6.2	272	93.8	290	53.3	***p*<0.001**
Requested type of birth							
Vaginal	43	12.1	312	87.9	355	65.3	χ^2=22.804
Caesarean	54	28.6	135	71.4	189	34.7	***p*<0.001**
Without a pandemic the requested birth type							
Vaginal	36	13.7	226	86.3	262	48.2	χ^2=5.772
Caesarean	61	21.6	221	78.4	282	51.8	***p*=0.016**
Wanting to give birth at home							
Yes	45	30.4	103	69.6	148	27.2	χ^2=21.942
No	52	13.1	344	86.9	396	72.8	***p*<0.001**
Without a pandemic the wanting to give birth at home							
Yes	49	50.0	49	50.0	98	18.0	χ^2=84.428
No	48	10.8	398	89.2	446	82.0	***p*<0.001**
Preference for determining the place of birth							
The house is cleaner and safer	41	8.9	421	91.1	462	84.9	χ^2=167.809
Hospital safer in all circumstances	56	68.3	26	31.7	82	15.1	***p*<0.001**

Table 2. Comparison of the Pregnancy-Related Anxiety Questionnaire mean scores of pregnant women with and without COVID-19 (+) (n=544)

Variables	COVID-19 (+) (n=97)	COVID-19(-) (n=447)	Test and *p* value	
	Mean±SD	Mean±SD		
Fear of giving birth child	11.47±3.91	10.49±4.15	t=2.115	***p*=0.035**
Worries about bearing a handicapped	13.04±3.59	11.49±3.52	t=3.909	***p*=0.029**
Concern about own appearance	7.44±3.21	6.62±2.81	t= 2.540	***p*=0.011**
Pregnancy-Related Anxiety Questionnaire Total	31.95±7.40	28.61±6.31	t= 4.134	***p*<0.001**

SD: Standard Deviation



Graph 1. PRAQ-R2 score graph of pregnant women with COVID 19(+) and COVID-19(-)

Table 3. Regression analysis with demographic and obstetric variables of being COVID-19 in pregnant women

Variables	B	S.E.	df	P	OR	95% CI	
						Lower	Upper
Age (y)[a]							
≤25	(Reference)						
≥26	-0.140	1.128	1	0.901	0.870	0.095	7.930
Education level[a]							
≤Secondary school	(Reference)						
≥High school	-0.692	1.018	1	0.497	0.501	0.068	3.679
Job[a]							
Officer	(Reference)						
Private sector	-2.646	1.059	1	0.012	0.071	0.009	0.565
Smoking [a]							
Yes	(Reference)						
No	1.906	0.848	1	0.025	6.729	1.277	35.458
Planned pregnancy [a]							
Yes	(Reference)						
No	-6.201	1.582	1	0.000	0.001	0.000	0.045
Presence of COVID-19 (+) in the environment [a]							
Yes	(Reference)						
No	2.917	1.387	1	0.035	18.492	1.221	280.170
Requested type of birth [a]							
Vaginal	(Reference)						
Caesarean	1.743	1.253	1	0.164	5.713	0.490	66.561
Without a pandemic the requested birth type [a]							
Vaginal	(Reference)						
Caesarean	-0.539	0.934	1	0.564	0.583	0.094	3.636
Wanting to give birth at home [a]							
Yes	(Reference)						
No	0.053	0.933	1	0.955	1.054	0.170	6.559
Without a pandemic the wanting to give birth at home [a]							
Yes	(Reference)						
No	0.487	0.906	1	0.591	1.628	0.276	9.616
Preference for determining the place of birth [a]							
The house is cleaner and safer	(Reference)						
Hospital safer in all circumstances	-3.800	1.113	1	0.001	0.022	0.003	0.198

[a] Categorical data were used.

B: Regression Coefficient; SE: Standard Error; OR: Odds Ratio; CI: Confidence Interval.

Table 4. Regression analysis with the Pregnancy-Related Anxiety Questionnaire of being COVID-19 in pregnant women

Variables	B	S.E.	df	P	OR	95% CI	
						Lower	Upper
Fear of giving birth child[b]	-0.058	0.030	1	0.055	0.944	0.890	1.001
Worries about bearing a handicapped[b]	-0.111	0.034	1	0.001	0.895	0.838	0.957
Concern about own appearance[b]	-0.075	0.039	1	0.057	0.928	0.859	1.002

[b] Numerical data were used. B: Regression Coefficient; SE: Standard Error; OR: Odds Ratio; CI: Confidence Interval.

Discussion

In this study, in which we planned to compare the anxiety results of pregnant women with and without COVID-19(+) during pregnancy, it was determined that 17.8% of primiparous pregnant women were COVID-19(+). Although pregnancy is physiologically defined as a period when susceptibility to infection occurs, there is no clear information in studies showing that pregnant women are more susceptible to COVID-19 (Ortiz, Herrera, & De La Torre, 2020, RCOG 2020). However, in the single-center study of San-Juan et al., in which 52 pregnant women were included in Spain, the incidence of COVID-19 in pregnant women was found to be 61.5% (San-Juan et al., 2020). In another study conducted with 61 pregnant women in the Hubei province of China, this rate was found to be 26.2% (Zhang et al., 2020). We think that these differences are due to the small sample groups as well as the different pandemic incidence rates of the countries.

In our study, the age, education, profession, smoking status of pregnant women, having a planned pregnancy, the presence of COVID-19(+) individuals in their environment, the types of birth they want, the type of birth they want in the absence of a pandemic period, their want to give birth at home, to give birth at home even if there is no pandemic process. It was determined that there was a relationship between preference for determining the place of birth and whether they were COVID-19(+) or not ($p<0.05$). In addition, as a result of the regression analysis model created with these variables, working in the private sector (OR=-0.071), smoking (OR= 6.729), having an unplanned pregnancy (0R = 0.002), the presence of COVID-19 in the environment (OR=18.492) and It was determined that the preference for determining the place of birth (OR=0.022) variables are important determinants of being COVID-19(+) in primiparous pregnant women.

In a retrospective study by Zhou et al., Age was determined to be the most important risk factor for COVID-19 (Zhou et al., 2020). Likewise, in the meta-analysis of Wang et al., It was stated that age has a determinant role in the risk of contracting COVID-19 (Wang, Li, Lu, & Huang, 2020). In a study conducted with 9468 people to determine the epidemiological, socio-demographic and clinical characteristics of the early stage of the COVID-19 pandemic in Latin America; It was determined that 46.3% of individuals with COVID-19(+) had university or higher education, while individuals with poor working conditions had more COVID-19(+) (Ortiz- Prado et al., 2021). In addition, in our study, it was determined that smoking increased the risk of COVID-19 6 times (OR=6.729). In parallel with our study, in the study conducted by Gaiha et al. with 4351 participants in order to examine the relationship between smoking and COVID-19 test and symptoms, it was stated that smoking increased the risk of COVID -19 7 times (Gaiha, Cheng, & Halpem- Felsher, 2020). In the literature review, there is no study examining the relationship between having a planned pregnancy and having COVID-19. However, in our study, it was determined that 48% of those with COVID-19(+) had unplanned pregnancy; We think that this situation is due to the fact that individuals with COVID-19 do not plan their pregnancy due to

reasons such as uncertainty and treatment process, but they also have difficulty in obtaining effective health counseling. In our study, it was determined that 79% of the pregnant women who had people with COVID-19(+) around were also COVID-19(+). This is thought to be due to the fact that kinship and friendship relations have an important place in our country and unobstructed interviews.

Another remarkable point in our study is that 65.3% of pregnant women want vaginal delivery, 51.8% would want cesarean delivery if there was no pandemic process, 72.8% want to give birth at home, 82% did not want to give birth at home unless there was a pandemic. It was determined that the reason why they wanted to give birth was that 84.9% of them described their homes as cleaner and safer. In the literature, there is no study examining the relationship between COVID-19 and these variables. In our country, according to the TNSA 2018 report, the rate of cesarean delivery was determined as 52% (TNSA, 2018). However, if there is no problem in the mother's health, mothers who have a normal vaginal delivery are discharged in 24-48 hours, and mothers who give birth by cesarean section in 24-96 hours. However, in case of early discharge, it is discharged within 24 hours or less after vaginal delivery and in 48 hours or less after cesarean delivery (Turkmen & Ozbasaran, 2017). In line with this information, we think that our results are due to the fact that pregnant women want to stay less in the hospital environment and have a shorter contact time during the pandemic. While pregnant women stated that they find their homes cleaner and safer for the same reason, it is thought that they prefer to give birth at home.

COVID-19 pandemic; has affected many aspects of daily life around the world and has led to mental health disorders by increasing anxiety in individuals globally (Lima et al., 2020). Individuals experiencing pregnancy for the first time may experience increased fear of birth, anxiety about the health status of the baby, and the physical changes they experience (Huizink, Mulder, & Buitelaar, 2004). Similar to our study, Lebel et al.'s study, which included 1987 participants who evaluated the increased depression and anxiety symptoms in pregnant individuals during the COVID-19 epidemic in Canada, determined that 37% of the participants had clinically high depression and 56.6% had clinically high anxiety symptoms (Label et al., 2020). In our study, they determined that pregnant women with COVID-19(+) had higher anxiety about physical appearance, fear of birth, fear of having a disabled baby, and pregnancy anxiety levels ($p<0.01$). In another study conducted with 1947 pregnant women, it was determined that COVID-19 increased the anxiety levels of pregnant women, and they had difficulties in making obstetric decisions on issues such as hospital preference, prenatal care or delivery time, mode of delivery, and feeding the baby (Liu et al., 2020). In another study determined in Israel, it was stated that the biggest anxiety cause of pregnant women with high anxiety levels was the concerns about the health of the fetus with a rate of 70% (Taubman – Ben-Ari, Chasson, Abu Sharkia, & Weiss, 2020).

In our study, it was determined that pregnant women with COVID-19(+) had higher levels of anxiety experienced by more fear of giving birth child, worries about bearing a handicapped and concern about own appearance, and the difference between the groups was statistically significant ($p<0.05$). The studies conducted are in parallel with our study. In addition, as a result of the regression analysis model created with these variables, it was determined that being COVID-19(+) is an important determinant of worries about bearing a handicapped in primiparous pregnant women (OR=0.895).

Limitations of the Study: The study also has some limitations. First, the cross-sectional nature of this study is one of the main limitations. It prevents it from being determined in terms of causality. A prospective cohort study will be more reliable in determining causes. Secondly, the results may not be generalizable because pregnant women cannot take a control group due to the continuation of the pandemic process and they do not have a large sample group. Therefore, ıt may be suggested to cover a large sample in future studies.

Conclusion and Recommendations: Not knowing when the epidemic will end, the lack of a definitive treatment method, the existence of ever-changing information flow about the epidemic and its effects, problems such as a decrease in social relations and isolation due to the pandemic can

adversely affect the mental health of individuals. At the same time, the number of patients and mortality rates continue to increase rapidly. All these factors can cause negative psychological effects during pregnancy.

Information on the role of the socio-demographic characteristics of women experiencing pregnancy during the pandemic period in the diagnosis of COVID-19(+) and its effect on the anxiety level during pregnancy is limited. The results show that being infected with COVID-19 is associated with age, education level, occupation, smoking, presence of COVID-19 in the immediate environment, as well as obstetric decision making and increases the level of anxiety during pregnancy.

Midwives and other health workers; during the pandemic, pregnant women should be evaluated accordingly and should be informative about especially strengthened personal protection to reduce the possibility of infection. Midwives and healthcare professionals should know that the anxiety level of pregnant women diagnosed with COVID-19(+) will increase and how they will experience anxiety and should provide necessary supportive care in this direction.

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