



## ORIGINAL ARTICLE

## Pregnancy Symptoms and COVID-19 Fear Experienced by Pregnant Women

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### Abstract

**Purpose:** This research was executed in order to designate the level of symptoms pregnant women experience, and the link between COVID-19 fear and pregnancy symptoms.

**Material and method:** A questionnaire was carried out on women 12-40 weeks pregnant who consulted Bingöl Maternity and Children Hospital between 11 February-1 July 2022. Data were obtained by "Sociodemographic Form", "Pregnancy Symptom Inventory (PSI)" and "COVID-19 Fear Scale". The research was completed with 390 pregnant women.

**Findings:** It was determined that frequently encountered 5 symptoms pregnant women experience are firstly thrombocytopenia, secondly fatigue or weakness, thirdly sleep deprivation, fourthly increase in vaginal secretion, and fifthly backache. It was also observed that there was a positive relationship between PSI and its impact on daily life, and a positive relationship between fear of COVID-19 and pregnancy symptoms. Moreover, a positive relationship between COVID-19 and its impact on daily life was observed. Weight, gestational week, and regular controls were found to be statistically significant for PSI. It was determined that COVID-19 fear and the number of births are worthwhile.

**Outcome:** Pregnancy symptoms of expectant mothers are effective in limiting life. The fear of the COVID-19 pandemic influences the level of pregnancy symptoms.

### Keywords

Pregnant woman, Pandemic, Pregnancy symptoms

COVID-19 into a pandemic have caused stress, fear, and anxiety in individuals [2,3]. Naturally, one of the psychological aspects of the COVID-19 pandemic is fear [4]. It is crucial to comprehend the impact of fear on the mental health of individuals [5]. Patients who are diagnosed positive and treated due to the effect of fear caused by COVID-19, as well as their families and all individuals contacted with them, may experience social exclusion. This situation may increase the risk of mental health issues in all individuals, such as adjustment disorder and depression [6,7].

Fear is a defense mechanism that is necessary for the survival of living things and supports adaptation. It is acknowledged that fear which becomes chronic can cause mental disorders along with harming individuals in multiple ways [8,9]. There are pregnant women among the groups who are vulnerable to viral infections and the consequences of these infections [10]. Situations such as high levels of stress, emergencies, and natural disasters can increase the risk of mental illness in pregnant women during pregnancy. Therefore, it can be assumed that pregnant women are vulnerable to mental and psychological health problems during the COVID-19 outbreak [11]. The prevalence of such diseases increases the concerns and fears of pregnant women about the health of themselves and their babies [12].

In addition to the metabolic requirements, the developmental needs of the foetus also increase during pregnancy. Anatomical, immunological, and physiological changes occur in the pregnancy process

### Introduction

World Health Organization (WHO) declared coronavirus illness (COVID-19) as a pandemic in March 2020 [1]. The widespread and transformation of



**Citation:** Dikmen RD, Yıldız EAB, Şahin A (2023) Pregnancy Symptoms and COVID-19 Fear Experienced by Pregnant Women. Int J Womens Health Wellness 9:147. doi.org/10.23937/2474-1353/1510147

**Accepted:** March 07, 2023; **Published:** March 09, 2023

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[13]. Increased oxygen demand, increase in the diaphragm, increased abdominal pressure, decreased lung capacity, decreased compliance of chest wall, oedema of respiratory mucous, and inability to clear the secretions in the respiratory tract reduce the hypoxia tolerance of the pregnant and may lead to a faster progression to respiratory failure [14,15]. Evidence-based information about a new disease, COVID-19, is limited in pregnant women [13]. A study conducted in the United States with 2740 pregnant women during COVID-19 pandemic period (2020) found that the pandemic increases pregnancy anxiety and significantly affects the mental health of the participating individuals [16]. We did not find a study in which pregnancy symptoms and fear of COVID-19 were studied together in our literature review. We think it was the first in the region where the study took place. The aim of this study, which was carried out during the pandemic, is to determine the link between the symptom levels experienced by pregnant women and fear of restricting life, and fear of COVID-19.

## Material and Method

Between 12 and 40 weeks pregnant women who do not have chronic illnesses were included in the research. Ones with communication disorders, illiteracy, and receiving treatment for psychiatric disorders were excluded from the study. It took approximately 20 minutes to interview a pregnant woman. Before the research, it was informed that the participation was voluntary, and participants could stop answering the questionnaire as the conversation was ongoing if they wanted to. The data were collected by the researchers through face-to-face interviews with pregnant women at the hospital between 11 February and 1 July 2022. The research was completed with 390 pregnant women. 13 questionnaire forms that were abandoned or filled incompletely were not included in the study.

## Data collection tools

**Sociodemographic form:** It consisted of 12 articles about age, height, weight, pregnancy week, number of pregnancies, number of births, whether the pregnancy was planned or not, attendance to regular check-ups, professional status, level of education of pregnant women, and professional status and level of education of their partner.

**Pregnancy Symptom Inventory (PSI):** It was developed by Foxcroft, et al. (2013) to assess the frequency of symptoms experienced during pregnancy and the level of limitation of symptoms on daily life activities [17]. PSI is a two-section scale that evaluates 42 common symptoms in pregnancy. While the maximum score that can be achieved from the first section of PSI is 166, the minimum is 0. Each statement is evaluated between 0 and 3. The increase in the score from the first section of the PSI represents the increase

in the frequency of the symptoms experienced. The second section of PSI assesses the level of limitation of symptoms on daily life activities. This section is triple likert. Each statement is evaluated between 1 and 3. While the maximum score that can be achieved from the second section of PSI is 126, the minimum is 42. The increase in the score from the second section of the PSI represents the increase in the level of limitation of symptoms in daily life. Turkish validity and reliability of the scale were conducted by Gürkan ve Güloğlu (2020). The Cronbach Alpha coefficient is 0.82 [18]. In this research, the Cronbach Alpha value was determined as 0.81.

**Covid-19 fear scale:** COVID-19 Fear Scale was developed by Ahorsu, et al. (2020). It consists of 7 statements, all collected in one dimension. Scale statements are quintet likert. Each statement is listed from "1 - Strongly Disagree" to "5 - Strongly Agree. High scores on the scale indicate increased COVID-19 fear level. The Cronbach Alpha coefficient of the original scale is 0.82 [3]. The adaptation of the COVID-19 Fear Scale to Turkish was made by Artan, et al. (2021). The Cronbach Alpha coefficient of the scale is 0.86 [19]. In this research, the Cronbach Alpha value was determined as 0.90.

**Ethical permissions:** Prior to the research, ethics committee approval granted by Bingöl University Health Sciences Scientific Research and Publication Ethics Board, and (Date: 24.01.2022 Number: E-33117789-044-47213) institutional permission granted by Bingöl Maternity and Children Hospital (Date: 10.02.2022 Number: E-79879538-044-49920) were acquired.

**Statistical analysis:** SPSS 25.0 was used in order to analyze the data of this research. Primarily, reliability analysis was performed. Then the percentage, the frequency, the Anova, T-test, the correlation, and regression tests were performed. Post-Hoc tests were used to determine between which groups the significance was.

## Findings

It was found that, with regard to ages of pregnant women participating in the research, 82 individuals (21.0%) were between 18-24, 157 individuals (40.3%) were between 25-30, 105 individuals (26.9%) were between 31-36, 34 individuals (8.7%) were between 37-40, and 12 individuals (3.1%) were 41 and above. 184 (47.2%) participants were between 71-90 kg, while 180 (46.2%) of them were between 50-70 kg. When whether the current pregnancy was planned or not is asked, it was determined that 260 (66.7%) of pregnancies were planned, and 130 (33.3%) were unplanned pregnancies. It was determined that 257 (65.9%) participants gave birth between 1-3, 90 (23.1%) gave birth between 4-6, and 43 (11.0%) gave 7 or more births. In the event of regular pregnancy check-up visits, it was determined

that 351 (90.0%) people went to regular check-ups, and 39 (10.0%) people did not. It was found that 151 (38.7%) of the participants were primary school graduates. It was determined that 347 (89.0%) women were unemployed and 43 (11.0%) were employed. It was determined that the partners of 317 (81.3%) women were working and the partners of 73 (18.7%) women were not working. It was also determined that the partners of 114 (29.2%) women were high school graduates (Table 1).

When the prevalences of symptoms in the PSI were inspected, it was determined that frequently encountered 5 symptoms pregnant women experience are firstly thauria, secondly fatigue or weakness, thirdly sleep deprivation, fourthly increase in vaginal secretion, and fifthly backache. It was determined that

occasionally encountered symptoms are firstly food craving, secondly headache, thirdly fatigue or weakness, fourthly stretch marks on abdomen and thighs, and fifthly dry mouth (Table 2).

According to the correlation analysis between the effect of PSI on daily life and fear of COVID-19; it was determined that there was a positive relationship between PSI and the effect on daily life. Also, there was a positive relationship between COVID-19 fear and pregnancy symptoms. In addition, it was determined that there was a positive relationship between the fear of COVID-19 and the impact on everyday life (Table 3).

According to the results of the Schfee Post-Hoc test performed to unearth from which group this difference occurs, it was revealed that individuals with a weight of

**Table 1:** Descriptive statistics on participants' demographic variables.

Age	Frequency	Percent	Number of Pregnancy	Frequency	Percent
18-24 Age	82	21.0	1-3	304	77.9
25-30 Age	157	40.3	4-6	77	19.7
31-36 Age	105	26.9	7+	9	2.3
37-40 Age	34	8.7	Total	390	100.0
41 and over	12	3.1	<b>Number of Births</b>	<b>Frequency</b>	<b>Percent</b>
Total	390	100.0	1-3	257	65.9
<b>Size</b>	<b>Frequency</b>	<b>Percent</b>	4-6	90	23.1
1.50-1.60 m	117	30.0	7+	43	11.0
1.61-1.70 m	242	62.1	Total	390	100.0
1.71-1.80 m	31	7.9	<b>Whether This Pregnancy Is a Planned Pregnancy</b>	<b>Frequency</b>	<b>Percent</b>
Total	390	100.0	Yes	260	66.7
<b>Kilo</b>	<b>Frequency</b>	<b>Percent</b>	No	130	33.3
50-70 kg	180	46.2	Total	390	100.0
71-90 kg	184	47.2	<b>Level of education</b>	<b>Frequency</b>	<b>Percent</b>
91-110 kg	26	6.7	Primary School	151	38.7
Total	390	100.0	Middle School	72	18.5
<b>Pregnancy Week</b>	<b>Frequency</b>	<b>Percent</b>	High School	95	24.4
12-18 Week	103	26.4	University	72	18.5
19-25 Week	92	23.6	Total	390	100.0
26-30 Week	95	24.4	<b>Working Status</b>	<b>Frequency</b>	<b>Percent</b>
31-40 Week	100	25.6	Yes	43	11.0
Total	390	100.0	No	347	89.0
<b>Husband Employment Status</b>	<b>Frequency</b>	<b>Percent</b>	Total	390	100.0
Yes	317	81.3	<b>Husband Education Level</b>	<b>Frequency</b>	<b>Percent</b>
No	73	18.7	Primary School	99	25.4
Total	390	100.0	Middle School	73	18.7
<b>Regular Check-ups During Pregnancy</b>	<b>Frequency</b>	<b>Percent</b>	High School	114	29.2
Yes	351	90.0	University	104	26.7
No	39	10.0	Total	390	100.0
Total	390	100.0			

**Table 2:** Prevalence of symptoms included in the Pregnancy Symptom Inventory (PSI).

Pregnancy Symptoms	Symptom Status			
	Never Frequency Percent	Rarely Frequency Percent	Sometimes Frequency Percent	Often Frequency Percent
Fatigue or Weakness	14 (3.6)	18 (4.7)	93 (23.8)	265 (67.9)
Nausea	122 (31.3)	24 (6.2)	74 (19.0)	170 (43.6)
Vomiting	156 (40.0)	26 (6.7)	69 (17.7)	139 (35.6)
Reflux	126 (32.3)	30 (7.7)	59 (15.1)	175 (44.9)
Constipation	226 (57.9)	38 (9.7)	56 (14.4)	70 (17.9)
Hemorrhoids	280 (71.8)	10 (2.6)	34 (8.7)	66 (16.9)
Dry Mouth	143 (36.7)	28 (7.2)	86 (22.1)	133 (34.1)
Craving	173 (44.4)	56 (14.4)	104 (26.7)	57 (14.6)
Sleeping Disorder	91 (23.3)	9 (2.3)	38 (9.7)	252 (64.6)
Restless Leg	205 (52.6)	11 (2.8)	28 (7.2)	146 (37.4)
Leg Cramps	130 (33.3)	23 (5.9)	55 (14.1)	182 (46.7)
Snore	313 (80.3)	36 (0.2)	19 (4.9)	22 (5.6)
Frequent Urination	48 (12.3)	14 (3.6)	39 (10.0)	289 (74.1)
Urinary Incontinence-Leakage Urination	246 (63.1)	29 (7.4)	49 (12.6)	66 (16.9)
Increase in Vaginal Discharge	90 (23.1)	20 (5.1)	41 (10.5)	239 (61.3)
Thrush in the vagina	260 (66.7)	11 (2.8)	31 (7.9)	88 (22.6)
Change in Sexual Desire	212 (54.4)	21 (5.4)	31 (7.9)	126 (32.3)
Painful Veins in the Vaginal Area (Reservoir)	339 (86.9)	9 (2.3)	14 (3.6)	28 (7.2)
Carpal Tunnel (Numbness in Hands)	202 (51.8)	38 (9.7)	53 (13.6)	97 (25.0)
Sciatica / Pain Down the Back of the Leg	213 (54.7)	28 (7.2)	50 (12.8)	99 (25.4)
Back pain	73 (18.7)	20 (5.1)	70 (17.9)	227 (58.2)
Pain in the Hip Evya Pelvis	124 (31.8)	15 (4.00)	68 (17.4)	183 (46.9)
Pain in the breasts	173 (44.4)	39 (10.0)	84 (21.5)	94 (24.1)
Headache	139 (35.6)	44 (11.3)	103 (26.4)	104 (26.7)
Nipple Pain	195 (50.0)	36 (9.2)	68 (17.4)	91 (23.3)
Dizziness	197 (50.5)	57 (14.6)	81 (20.8)	55 (14.1)
Fainting/Fainting	368 (94.4)	10 (2.6)	8 (2.1)	4 (1.0)
Palpitation	242 (62.1)	31 (7.99)	61 (15.7)	56 (14.4)
Shortness of breath	164 (42.1)	36 (9.2)	89 (22.8)	101 (25.9)
Taste/Smell Changes	234 (60.0)	9 (2.3)	43 (11.0)	104 (26.7)
Forgetfulness	152 (39.0)	27 (6.9)	60 (15.4)	151 (38.7)
Feeling Depressed	138 (35.4)	33 (8.5)	72 (18.5)	147 (37.7)
Anxiety	156 (40.0)	25 (6.4)	74 (19.0)	135 (34.7)
Dreaming as if Real/Colored Dreaming	265 (67.9)	34 (8.7)	41 (10.6)	50 (12.8)
Change in Perception of Your Body	165 (42.3)	28 (7.2)	49 (12.6)	148 (37.9)
Acne on the skin	270 (69.2)	29 (7.4)	34 (8.7)	57 (14.7)
Arrival	268 (68.7)	23 (5.9)	33 (8.5)	66 (16.)
Face Pregnancy Mask	315 (80.5)	30 (7.7)	15 (3.8)	30 (7.7)
Itchy Skin	177 (45.49)	26 (6.7)	66 (16.9)	121 (31.0)
Change in Nipples	177 (45.4)	26 (6.79)	66 (16.9)	121 (31.0)
Stretch Marks in the Abdomen and Buttocks	58 (14.9)	22 (5.6)	94 (24.1)	216 (55.4)
Swelling in Hands and Feet	217 (55.6)	28 (7.2)	46 (11.8)	99 (25.4)

**Table 3:** Effect of pregnancy symptoms on daily life and relationship with fear of Covid-19.

Variables	(1)	(2)	(3)
PSi (1)	1		
	390		
Effect on Daily Life (2)	0.615**	1	
	0.000	390	
COVID -19 (3)	0.186**	0.133**	1
	0.000	0.000	390

\*(p &lt; 0.05; \*\*p &lt; 0.01; \*\*\*p &lt; 0.001)

**Table 4:** Anova analysis results of demographic variables of pregnant women and their spouses.

Variables			Number	Average	Standard Deviation	F	P
Age	PSI	18-24	82	1.2927	0.39868	1.125	0.344
		25-30	157	1.2763	0.43515		
		31-36	105	1.2615	0.41849		
		37-40	34	1.3481	0.43425		
		41+	12	1.0556	0.42329		
	Fear of COVID -19	18-24	82	2.4930	0.99182	1.228	0.298
		25-30	157	2.4004	0.87503		
		31-36	105	2.4395	0.85799		
		37-40	34	2.5210	1.12149		
		41+	12	3.0000	1.38906		
Size (m)	PSI	1.50-1.60	117	1.2148	0.44968	2.497	0.084
		1.61-1.70	242	1.2897	0.40065		
		1.71-1.80	31	1.3902	0.46894		
	Fear of COVID -19	1.50-1.60	117	2.4432	0.93910	0.053	0.949
		1.61-1.70	242	2.4711	0.94468		
		1.71-1.80	31	2.4286	0.91770		
Kilo (kg)	PSI	50-70	180	1.2160	0.42082	3.509	0.031
		71-90	184	1.3328	0.41955		
		91-110	26	1.2775	0.42308		
	Fear of COVID -19	50-70	180	2.4008	0.88439	2.361	0.096
		71-90	184	2.5543	0.99812		
		91-110	26	2.1923	0.80705		
Pregnancy Week	PSI	12-18	103	1.1879	0.43457	3.394	0.018
		19-25	92	1.2763	0.44734		
		33-36	95	1.2639	0.40071		
		37-40	100	1.3748	0.39274		
	Fear of COVID -19	12-18	103	2.3218	0.81887	1.073	0.361
		19-25	92	2.5450	1.01346		
		33-36	95	2.4857	0.96067		
		37-40	100	2.4971	0.96024		
Number of Pregnancy	PSI	1-3	304	1.2639	0.41475	0.491	0.613
		4-6	77	1.3152	0.43465		
		7+	9	1.3148	0.60933		
	Fear of COVID -19	1-3	304	2.4751	0.93849	0.197	0.821
		4-6	77	2.4007	0.91180		
		7+	9	2.4286	1.24130		

<b>Number of Births</b>	<b>PSI</b>	0	132	1.2475	0.39885	0.330	0.804
		1-3	125	1.2856	0.41588		
		4-6	90	1.2841	0.45461		
		7+	43	1.3113	0.45692		
	<b>Fear of COVID -19</b>	0	132	2.3333	0.07411	2.760	0.042
		1-3	125	2.5394	0.07881		
		4-6	90	2.6289	0.11727		
		7+	43	2.2591	0.13748		
<b>Education Level of Pregnant Women</b>	<b>PSI</b>	İlkokul	151	1.2602	0.45119	0.522	0.720
		Ortaokul	72	1.3132	0.43041		
		Lise	95	1.2393	0.41075		
		Üniversite	72	1.3145	0.37504		
	<b>Fear of COVID -19</b>	İlkokul	151	2.5264	1.02829	1.199	0.311
		Ortaokul	72	2.5734	0.84174		
		Lise	95	2.3564	0.95032		
		Üniversite	72	2.3611	0.80989		
<b>Husband Education Level</b>	<b>PSI</b>	İlkokul	99	1.3017	0.04860	0.413	0.800
		Ortaokul	73	1.2322	0.05237		
		Lise	114	1.2811	0.03894		
		Üniversite	104	1.2711	0.03475		
	<b>Fear of COVID -19</b>	İlkokul	99	2.5671	0.10634	0.857	0.490
		Ortaokul	73	2.4990	0.11361		
		Lise	114	2.3985	0.07889		
		Üniversite	104	2.4066	0.08866		

50-70 kg experienced fewer symptoms than those who were overweight. The difference between pregnancy week and PSI was determined, however, it did not show any difference with the fear of COVID-19. According to the result of the Schfee Post-Hoc test performed to unearth from which group this difference occurs, it was revealed that 12-18 weeks pregnant women experienced fewer symptoms compared to 37-40 weeks. It was seen that there was not any difference between the number of pregnancies and the fear of PSI and COVID-19. While it was determined that there was not any difference between the number of births and PSI, it was determined that this situation was the opposite between the fear of COVID-19 and the number of births. According to the Scheffe Post-Hoc test, it was determined that individuals who do not have children have lower fear than those who have 4-6 children (Table 4).

Likewise, there was not any statistically significant difference between the working status of the partners of participants and the fear of PSI and COVID-19. It was found that there was a significant difference between regular check-up status and PSI. Even though, there was no difference between the fear of COVID-19 and the status of going to regular check-ups (Table 5).

## Discussion

Women who are pregnant experience numerous physical symptoms due to natural physiological changes

[17]. The findings of this study, which examined the frequency of pregnancy symptoms during the pandemic process, the effects of these symptoms on daily life restriction, and COVID-19 fear, were discussed with the literature. It was seen that 67.9% of the participating pregnant women frequently experienced the symptoms of fatigue and weakness. Foxcroft, et al. (2013) found the rate of experiencing fatigue and weakness symptoms as 45.5% in their study with the participation of 211 pregnant women [17]. In a study conducted in Turkey, it was seen that fatigue and weakness symptoms were experienced frequently at a rate of 30.9%. [20]. The fact that 89% of the participants were housewives and that, culturally, women are responsible for taking care of children and other housecare may affect fatigue levels. It was designated that the frequently confronted symptoms are nausea in 43.6% (139 people), reflux symptom in 44.9%, and dry mouth symptom in 34.1% (133 people). Also, in a study, it was found that the symptoms of nausea were experienced in 34.4%, reflux symptoms in 29.6%, and dry mouth symptoms in 32.8% [17]. In a study conducted with pregnant women in Turkey (2017), it was found that the symptoms of nausea in 15.5% and reflux in 30.9% were experienced frequently [20].

Urinary symptoms in pregnant women are highly encountered [21]. Studies show that the prevalence of urinary symptoms in pregnancy is between 63% and 80%

**Table 5:** T-Test analysis results of demographic variables of pregnant women and their spouses.

	Variables		Number	Average	Standard Deviation	T	P
<b>Employment Status of Pregnant Woman</b>	<b>Pregnancy Symptoms</b>	No	344	1.2762	0.42487	0.191	0.785
		Yes	43	1.2630	0.42436	0.191	
	<b>Fear of COVID -19</b>	No	344	2.4585	0.94858	0.153	0.360
		Yes	43	2.4817	0.87899	0.162	
<b>Husband Employment Status</b>	<b>Pregnancy Symptoms</b>	No	71	1.2914	0.42732	0.391	0.948
		Yes	317	1.2696	0.42301	0.388	
	<b>Fear of COVID -19</b>	No	71	2.4085	0.82040	0.480	0.113
		Yes	317	2.4678	0.96600	0.532	
<b>Regular Check-up Status</b>	<b>Pregnancy Symptoms</b>	No	35	1.1837	0.53263	-1.352	0.005
		Yes	351	1.2852	0.41144	-1.096	
	<b>Fear of COVID -19</b>	No	35	2.3959	0.87659	0.446	0.359
		Yes	351	2.4705	0.94898	0.476	

[22,23]. In our study, the rate of those who experienced frequent thauria was 74.1%, while this rate was 87.7% in total. In pregnant women, Coşar Çetin, et al. reported the frequency of thauria symptoms as 93.9%, and Foxcroft, et al. 85.2% [17,20]. In this study, it was seen that 37.7% (147 people) of pregnant women frequently experienced the symptom of feeling depressed and 34.4% had frequent anxiety symptoms. A study fulfilled in the United States (2020) inquired depression status of pregnant women who are between 6-14 and 22-30 weeks pregnant. This study, which tracks postconception depression status as well, concluded that women whose depression status increase as pregnancy carries on, have more possibility to give premature birth [24]. In a study conducted with 298 pregnant women (2020), it was seen that 82 pregnant women experienced various levels of anxiety and 93 pregnant women experienced various levels of depression. [25]. In this study, which was conducted during the period of partial isolation related to the pandemic, the psychological effects of the disease on pregnant women may have affected the result. In addition, the fact that the current pregnancy of 33.3% of pregnant women was not planned might have increased their concerns.

In this study, it was determined that pregnant women experienced the symptom of increased vaginal discharge in a total of 76.9% and frequently in 61.3%. In similar studies, this rate was found to be 86.4% and 49.8% [17,20]. Also, it was found that 58.2% of the participants had frequent back pain and 46.9% (183 people) had frequent hip or pelvis pain. In the study of Foxcroft, et al., these rates were 19.5% and 10.6%, respectively [17]. In a study, it was seen that pregnant women frequently experience back and low back pain at a rate of 41.5% [20]. It is estimated that the prevalence of pregnancy-related back pain, which is a significant health problem related to pregnancy, is over 50% [26,27]. Pregnancy is a risk factor for leg cramps [28]. Leg cramps can lead to severe pain and sleep deprivation. Sleep deprivation

can prevent daily activities from being carried out and makes pregnancy difficult [29].

### Suggestions

This research revealed that the coronavirus pandemic has affected pregnancy processes, lives, and routines of pregnant women. Women are vulnerable especially during pregnancy. Measures that support the psychological health of pregnant women should be considered. Careful monitoring of both physiological and psychological needs of mothers especially for this period and reducing their anxiety and stress by informing expectant mothers will contribute positively to the birth process and the postpartum period.

Both pregnant women and healthcare professionals can help women to make small lifestyle changes by setting common goals, reminders, and feedback. Strategies should be sought to improve collaboration between all health care professionals involved in regular antenatal care and pregnant women.

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