ORIGINAL PAPER

Relationship of Depression, Anxiety and Stress Levels with Religious Coping Strategies Among Turkish Pregnant Women During the COVID-19 Pandemic

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Abstract

The aim of this study was to investigate the depression, anxiety, stress levels, and religious coping strategies of Turkish pregnant women during the COVID-19 pandemic. Of the pregnant women involved in this study ($N=327$), 74.6% were concerned about their health, whereas 85.9% had concerns about the health of the fetus during the COVID-19 pandemic. It was found that 19.9% had extremely severe depression, 97.9% had extremely severe anxiety, and 52.3% had severe stress symptoms. Religious coping scores of the pregnant women included in the study were found to be high. There was a weak positive correlation between positive religious coping and depression and a very weak negative correlation between negative religious coping and depression.

Keywords Pregnant · Religious coping · Anxiety · Depression · COVID-19

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Introduction

The COVID-19 novel coronavirus (SARS-CoV-2) was first reported in late December 2019, in Wuhan China, and then spread worldwide (Qiu et al., 2020; Xu et al., 2020). Turkey announced its first COVID-19 positive case on March 11, 2020, relatively later than the European countries (The Republic of Turkey Ministry of Health, 2020). The COVID-19 pandemic has been a challenging trauma for everyone and a threat to people's lives globally. Traumatic effects of a disease vary depending on individual characteristics, socioeconomic status, cultural background, and mental health (Kaya, 2020). A pandemic can cause social isolation and severe psychological anxiety in humans, resulting in fear and worry about their own and their loved ones' health, as well as sleep and eating pattern changes, concentration disorders, worsening in chronic diseases, mental health impairment and increase in usage of alcohol, tobacco, or other illegal drugs (Coronavirus Disease, 2019; Xu et al., 2020).

Natural disasters or emergency situations encountered during pregnancy can cause high emotional distress, which creates risk factors in pregnancy that may lead to negative consequences for maternal and fetal health, such as preterm birth, low birth weight, maternal mood disorders, and infant developmental delays (Preis et al., 2020). In COVID-19, pneumonia and the need for mechanical ventilation have been identified as maternal complications, while abortion, growth retardation, and preterm delivery have been identified as fetal complications in pregnant women. High fever in early pregnancy is also associated with fetal malformations, and therefore, it should not be ignored among complications (Dashraath et al., 2020; Desdicioglu & Yavuz, 2020). In light of this information, evidence has shown that pregnant women suffer from high psychological distress during the ongoing COVID-19 outbreak (Preis et al., 2020; Saccone et al., 2020; Wu et al., 2020). In a study conducted in Italy, it has been reported that 51% of the pregnant women fear that COVID-19 can cause preterm labor, whereas 65% and 47% were concerned about fetal growth restriction and fetal structural anomalies, respectively. Furthermore, researchers have reported that anxiety levels of women about the pandemic are evident (Mappa et al., 2020). Intense anxiety during pregnancy can be a risk factor for high mental health problems in maternal, such as postnatal depression, impaired mother-infant bonding, and obstetric complications, such as postmature or premature delivery and impaired fetal growth (Mappa et al., 2020). Individuals may attempt to cope with unfavorable life events or stressful situations in various ways. One of these coping strategies is spiritual/religious tendencies (Sagir, 2020). A review on religion and anxiety has shown that religious involvement and tendency are associated with lower anxiety levels (Shreve-Neiger & Edelstein, 2004). Religious coping is a powerful strategy that helps deal with stressful situations (Ano & Vasconcelles, 2005; Taheri-Kharameh et al., 2016). However, religious coping is a multi-dimensional construct, and it can have both positive and negative influences on the outcomes (Pargament et al., 1998; Taheri-Kharameh et al., 2016). Positive religious coping is associated with favorable benefits in the psychosocial adjustment, whereas negative religious coping leads to bad outcomes and therefore is deemed maladaptive (Ano & Vasconcelles, 2005; Pargament et al., 2004).

Experiencing pregnancy in crisis situations such as a pandemic causes increased stress and anxiety associated with potential adverse obstetric outcomes such as intrauterine fetal death or fetal abnormalities. Stress and anxiety increase during infectious diseases (Spiniello et al., 2020). A study conducted in Italy indicated that more than two-thirds of the pregnant women experienced higher-than-normal anxiety levels during the COVID-19 pandemic (Saccone et al., 2020). Thus, in order to cope with the crisis situation, it is necessary both to identify and apply the coping methods used in the past and to develop new coping strategies. Religious coping is one of those coping strategies. It is stated that religious faith provides women with social support, as well as life purpose, self-confidence and ability to cope with crises (Olcer & Oskay, 2015).

The current study investigates the depression, anxiety, stress levels, and religious coping strategies of Turkish pregnant women during the ongoing COVID-19 pandemic.

Materials and Methods

Study Design

This study was designed as a cross-sectional research.

Study Population and Sample Size

The study population consisted of all pregnant women with no risk of preterm labor who were admitted to the gynecology and obstetrics outpatient clinic in a state hospital in Turkey's Mediterranean Region. The study was carried out between July and October 2020. Before the study started, the sample size was calculated as 189 persons using the statistical power analysis tool, G power 3.1.9.7 software, based on the correlation $= 0.3$, the $\alpha = 0.01$, and the power $(1\text{-}\beta) = 0.95$. The study sample comprised 327 Turkish-speaking Muslim pregnant women with no loss of sight or hearing, who were open to verbal communication, agreed to participate in the study and filled out the questionnaire.

Data Collection

All pregnant women were surveyed with Descriptive Characteristics Form, Depression, Anxiety and Stress Scale-21 (DASS-21), and Religious Coping Scale (RCS). The researchers collected the data through face-to-face interviews without disturbing the functioning of the institution.

Descriptive Characteristics Form

The form created by the researchers consisted of twelve questions enabling the researchers to investigate the sociodemographic and obstetric characteristics of the

pregnant women. The questions were about age, marital status, educational status, place of residence, family type, type of pregnancy, the month of pregnancy, number of pregnancies, number of children, family income, the concern of the pregnant woman for her own health and her baby's health during the COVID-19 pandemic.

Depression Anxiety Stress Scale-21 (DASS-21)

Lovibond and Lovibond developed the DASS-42 scale consisting of 42 items (Lovibond & Lovibond, 1995). Then, Henry and Crawford (2005) created the 21-item short-form version of the scale (Henry & Crawford, 2005). Saricam (2018) examined the DASS-21 scale Turkish version psychometric properties in normal and clinical samples. It is a four-point Likert-type scale comprising seven questions and measures depression, stress, and anxiety (Saricam, 2018). In this study, the Cronbach alpha internal consistency coefficient was calculated as 0.87 for the depression subscale, 0.83 for the anxiety subscale, and 0.80 for the stress subscale.

Religious Coping Scale

The scale developed by Abu-Raiya et al. (2008) was adapted into Turkish by Eksi & Sayin (2016). This four-point Likert-type scale consists of ten items and two sub-dimensions as "positive religious coping" and "negative religious coping." Positive and negative religious coping scores are calculated separately, and it is not possible to obtain "a total religious coping score" (Eksi and Sayin, 2016). In the study, the Cronbach alpha internal consistency coefficient was calculated as 0.89 for the positive religious coping subscale and 0.88 for the negative religious coping subscale.

Statistical Analysis

All statistical analyses were performed using SPSS (Statistical Package for the Social Sciences) version 20.0 (SPSS Inc., Chicago, IL, USA). The normality of the data was analyzed using the Shapiro–Wilk test or Kolmogorov–Smirnov test. Percentage, frequency, one-way ANOVA, and independent sample t-test were used in the study. A p value of < 0.05 was considered statistically significant.

Ethical Issues

This study was performed in line with the principles of the Declaration of Helsinki. The ethical approval was granted by the Non-Interventional Clinical Research Ethics Committee of Istanbul Medipol University (06.08.2020/10840098–772.02-E.34281).

Results

Table 1 presents the distribution of the pregnant women according to their soci-odemographic characteristics. Of the pregnant women, 49.5% were between the ages of 26 and 34, 93.9% were married, 49.5% were secondary education graduates, 49.2% were living in the city, 52.3% were nuclear family, 54.7% had an unintended pregnancy, and 55.7% were in the third trimester of pregnancy. It was further seen that 44.3% of the pregnant women had their second pregnancy, 68.8% had one or two children, 54.4% had insufficient income, 74.6% were concerned about their own health, and 85.9% about their baby's health during the COVID-19 period (Table 1).

The mean DASS-21 scores of the pregnant women were 13.97 ± 2.25 for the anxiety subscale (min: 6.00, max: 19.00), 11.45 ± 2.56 for the depression subscale (min: 3.00, max: 18.00), and 12.82 ± 2.24 for the stress subscale (min: 7.00, max: 19.00). Positive and negative religious coping scores were 24.91 ± 1.56 (min: 21.00, max: 28.00) and 8.25 ± 1.47 (min: 5.00, max: 12.00), respectively.

The current study found that the DASS 21-depression mean score of the pregnant women between the ages of 26–34 was higher than those aged 17–25. Also, the DASS 21-depression mean score of the pregnant women living in the village was higher than the ones living in the district and the DASS 21-anxiety mean score of those living in the countryside was higher than the ones living in the town or city. It was determined that the DASS 21-stress mean score of women with an unplanned pregnancy was higher than the women with a planned pregnancy. The DASS 21-depression mean score of the pregnant women with two pregnancies was higher than those with only one pregnancy. It was also found that the mean depression score of the pregnant women with 1–2 children was higher than those who had no children. Furthermore, the DASS 21-depression mean score of the pregnant women worrying about their baby's health during the COVID-19 pandemic was higher than the pregnant women not having any concerns about their babies' health (Table 2).

As for the religious coping distributions, the mean negative religious coping score of married pregnant women was higher than that of unmarried pregnant women. It was found that the mean positive religious coping score was higher in the pregnant women in the 3rd trimester than in the pregnant women in the 1st and 2nd trimesters. During the COVID-19 pandemic, it was determined that the mean positive religious coping score was higher in the pregnant women who were concerned about their own health than those who were not concerned. Besides, it was found that the negative religious coping mean score of the pregnant women not having any concerns about their baby's health during the COVID-19 pandemic was significantly higher than the mean scores of the ones worrying about their babies' health (Table 2).

Table 3 shows the distribution of depression, anxiety, and stress levels of the pregnant women. Accordingly, 19.9% of those had extremely severe depression, 97.9% had extremely severe anxiety, and 52.3% had severe stress symptoms (Table 3).

The correlation analysis of the scores of the pregnant women obtained with the DASS-21 and RCS is given in Table 4. While there was a weak positive

Table 1 Sociodemographic and obstetric characteristics of Turkish pregnant women

Characteristics (n = 327)	N	%
Age (years)		
17–25	62	19.0
26–34	162	49.5
≥ 35	103	31.5
Marital status		
Married	307	93.9
Single	20	6.1
Education		
Primary school degree	76	23.2
Secondary school degree	162	49.5
Bachelor degree	89	27.3
Income status		
Good income	23	7.0
Middle income	126	38.5
Poor income	178	54.4
Place of residence		
City	161	49.2
Town	132	40.4
Rural area	34	10.4
Family type		
Nuclear family	171	52.3
Extended family	156	47.7
Mode of conception		
Planned pregnancy	148	45.3
Unplanned pregnancy	179	54.7
Trimester of pregnancy		
First Trimester	33	10.1
Second Trimester	112	34.2
Third Trimester	182	55.7
Gravida		
First	62	19.0
Second	145	44.3
Third and more	120	36.7
Number of children		
None	63	19.3
1–2	225	68.8
3–4	39	11.9
Are you worried about your health during the COVID-19 outbreak?		
Yes	244	74.6
No	83	25.4
Are you worried about your baby's health during the COVID-19 outbreak?		
Yes	281	85.9

Table 1 (continued)

Characteristics (n = 327)	N	%
No	46	14.1

correlation between the positive religious coping subscale of RCS and the depression subscale of DASS-21, there was a very weak negative correlation between the negative religious coping subscale of RCS and the depression subscale of DASS-21 (Table 4).

Discussion

The COVID-19 pandemic threatens both the physical and mental health of individuals. During pregnancy, women suffer high stress and anxiety associated with potential adverse obstetric outcomes such as intrauterine fetal death or fetal abnormalities. Stress and anxiety among people may increase during infectious disease outbreaks. This study has revealed the depression, anxiety, stress levels, and religious coping strategies of Turkish pregnant women during the COVID-19 pandemic.

It was observed in the study that of the pregnant women, 97.9% had extremely severe anxiety, 52.3% severe stress, and 43.4% severe depression symptoms. Depression and anxiety levels of the pregnant women living in the village were significantly higher than those living in the city. These findings can be attributed to possible difficulties in reaching healthcare facilities in an emergency situation in a small village.

The study revealed that women worrying about the fetus' health during the COVID-19 pandemic showed more depressive symptoms and had negative religious coping skills. Although evidence exists in the literature that there is no risk of transmission to the fetus (Chen et al., 2020), women's concerns about their own and the fetus' health may negatively affect their health. Similar to the results obtained in the current study, Piccinini et al. found that negative religious/spiritual coping was associated with higher levels of depressive, anxious, and stress symptoms and worse physical and psychological quality of life (Piccinini et al., 2021). It has been stated in the literature that individuals with low religiosity and spirituality are depressed, have higher level of anxiety, and experience worse quality of life and psychiatric consequences (Bonelli, 2013; Koenig, 2007, 2009; Lucchetti et al., 2012; Piccinini et al., 2021). The studies conducted on the subject indicate that some stressors such as fetus' health, pregnancy-related disorders, mother's anxiety, social problems, insomnia, low family, and social support can negatively affect the mental health of pregnant women. In addition, these stressors cause pregnant women to be more prone to general mood disorders (Bei et al., 2010; Pawar 2011). These results obtained in the current study support the literature findings.

In a study conducted in Italy, the COVID-19 pandemic was reported to have moderate-to-severe psychological effects on pregnant women. Over two-thirds of women had higher than normal anxiety levels, and roughly half of the women (46%) suffered acute anxiety regarding the disease transmission. The psychological effect

Table 2 Comparison of sociodemographic and obstetric characteristics of Turkish pregnant women with subscales mean scores for DASS-21 and RCS

Characteristics (n = 327)	DASS-21			RCS	
	Depression	Anxiety	Stress	Positive religious coping	Negative religious coping
	X ± SD	X ± SD	X ± SD	X ± SD	X ± SD
*Age (years) **					
17–25[a]	10.74 ± 2.56	13.58 ± 2.21	12.54 ± 2.37	24.87 ± 1.52	8.16 ± 1.83
26–34[b]	11.68 ± 2.54	14.01 ± 2.34	12.70 ± 2.17	24.86 ± 1.57	8.35 ± 1.43
≥ 35[c]	11.52 ± 2.53	14.15 ± 2.10	13.18 ± 2.25	25.02 ± 1.58	8.15 ± 1.31
Test	3.134	1.315	2.014	0.382	0.751
p	**0.045**	0.270	0.135	0.683	0.473
Statistically significant difference	**b > a**				
*Marital status***					
Married	11.41 ± 2.55	13.92 ± 2.23	12.84 ± 2.28	24.90 ± 1.54	8.30 ± 1.47
Single	12.05 ± 2.68	14.80 ± 2.37	12.65 ± 1.49	25.15 ± 1.81	7.55 ± 1.39
Test	0.045	0.177	6.395	1.314	0.1444
p	0.317	0.124	0.601	0.557	**0.029**
*Education**					
Primary school degree	11.73 ± 2.81	14.39 ± 1.96	13.00 ± 2.19	24.73 ± 1.59	8.35 ± 1.47
Secondary school degree	11.40 ± 2.53	13.85 ± 2.22	12.88 ± 2.23	24.95 ± 1.59	8.25 ± 1.48
Bachelor degree	11.31 ± 2.39	13.84 ± 2.49	12.57 ± 2.31	25.00 ± 1.49	8.16 ± 1.47
Test	0.628	1.702	0.855	0.679	0.326
p	0.534	0.184	0.426	0.508	0.722
*Income status**					
Good income [a]	11.47 ± 2.50	14.47 ± 2.06	12.78 ± 2.04	25.13 ± 1.32	8.13 ± 1.35
Middle income [b]	11.58 ± 2.61	14.24 ± 2.10	12.78 ± 2.35	24.96 ± 1.60	8.22 ± 1.58
Poor income [c]	11.35 ± 2.54	13.72 ± 2.35	12.86 ± 2.20	24.85 ± 1.56	8.29 ± 1.41
Test	0.291	2.615	0.051	1.043	0.408
p	0.747	0.275	0.950	0.655	0.830
*Place of residence **					
City [a]	11.48 ± 2.40	13.70 ± 2.33	12.60 ± 2.34	24.88 ± 1.58	8.22 ± 1.46
Town [b]	11.18 ± 2.53	14.00 ± 2.17	13.00 ± 2.17	25.02 ± 1.50	8.39 ± 1.52
Rural area [c]	12.38 ± 3.17	15.12 ± 1.74	13.20 ± 2.01	24.65 ± 1.71	7.88 ± 1.34
Test	3.026	6.176	1.722	0.742	1.707
p	**0.047**	**0.002**	0.180	0.477	0.183
Statistically significant difference	**c > b**	**c > a,b**			
*Family type ***					
Nuclear family	11.24 ± 2.39	14.21 ± 2.15	12.91 ± 2.17	24.88 ± 1.65	8.33 ± 1.42
Extended family	11.68 ± 2.72	13.72 ± 2.32	12.73 ± 2.32	24.94 ± 1.46	8.17 ± 1.53
Test istatistiği	2.695	1.612	0.742	3.942	0.958

Table 2 (continued)

Characteristics (n=327)	DASS-21			RCS	
	Depression	Anxiety	Stress	Positive religious coping	Negative religious coping
	X±SD	X±SD	X±SD	X±SD	X±SD
p	0.123	0.053	0.484	0.729	0.330
Mode of conception **					
Planned pregnancy	11.66±2.76	14.10±2.27	12.55±2.28	24.96±1.51	8.16±1.51
Unplanned pregnancy	11.27±2.37	13.87±2.22	13.16±2.16	24.87±1.60	8.33±1.44
Test	2.236	0.085	0.609	0.809	0.423
p	0.178	0.346	**0.014**	0.607	0.295
Trimester of pregnancy *					
First Trimester [a]	11.90±2.36	13.21±1.98	12.81±2.25	24.12±1.65	8.25±1.41
Second Trimester [b]	11. 56±2.70	14.12±2.38	13.03±2.27	24.50±1.48	8.25±1.47
Third Trimester [c]	11.30±2.50	14.02±2.19	12.70±2.22	25.08±1.56	8.25±1.49
Test	0.918	2.210	0.759	5.540	0.002
p	0.401	0.111	0.469	**0.004**	0.998
Statistically significant difference				**c > b,a**	
Gravida *					
First [a]	10.74±2.56	13.58±2.21	12.54±2.37	24.87±1.52	8.16±1.83
Second [b]	11.71±2.57	13.98±2.35	12.75±2.16	24.91±1.58	8.27±1.39
Third and more [c]	11.51±2.49	14.12±2.12	13.06±2.27	24.95±1.57	8.28±1.37
Test	3.200	1.431	1.243	0.054	0.160
p	**0.042**	0.241	0.29	0.947	0.852
Statistically significant difference	**b > a**				
Number of children *					
None [a]	10.77±2.56	13.58±2.19	12.60±2.39	24.82±1.55	8.17±1.81
1–2 [b]	11.73±2.52	14.06±2.29	12.91±2.24	24.94±1.56	8.21±1.38
3–4 [c]	10.94±2.53	14.12±2.06	12.71±1.99	24.89±1.63	8.64±1.38
Test	4.381	1.195	0.515	0.151	1.517
p	**0.013**	0.304	0.598	0.860	0.221
Statistically significant difference	**b > a**				
Are you worried about your health during the COVID-19 outbreak? **					
Yes	11.50±2.61	13.93±2.27	12.95±2.26	25.81±1.52	8.20±1.45
No	11.32±2.39	14.12±2.19	12.44±2.14	25.22±1.64	8.39±1.55
Test	3.336	0.180	0.028	0.197	0.052
p	0.576	0.501	0.066	**0.044**	0.333
Are you worried about your baby's health during the COVID-19 outbreak? **					
Yes	11.57±2.57	14.02±2.31	12.81±2.28	24.86±1.60	8.18±1.45
No	10.73±2.36	13.71±1.78	12.89±1.99	25.21±1.24	8.69±1.56
Test	1.618	5.359	0.293	4.398	0.204

Table 2 (continued)

Characteristics (n=327)	DASS-21			RCS	
	Depression	Anxiety	Stress	Positive religious coping	Negative religious coping
	X ± SD	X ± SD	X ± SD	X ± SD	X ± SD
p	**0.032**	0.310	0.823	0.096	**0.042**

*One-way ANOVA, **Independent sample t-test

Table 3 Distribution of depression, anxiety, and stress levels of Turkish pregnant women

DASS-21						
Level	Depression		Anxiety		Stress	
	N	%	N	%	N	%
Normal	1	0.3	–	–	3	0.9
Mild	8	2.5	–	–	23	7.0
Moderate	111	33.9	1	0.3	112	34.3
Severe	142	43.4	6	1.8	171	52.3
Extremely severe	65	19.9	320	97.9	18	5.5

Table 4 Correlation analysis of DASS-21 and RCS total scores of Turkish pregnant women

		DASS-21					
		Depression		Anxiety		Stress	
		r	p	r	p	r	p
RCS	Positive religious coping	0.269	0.002	− 0.014	0.807	0.003	0.983
	Negative religious coping	− 0.157	0.004	− 0.063	0.257	0.032	0.567

and anxiety level were reported at the highest level, particularly in the first trimester (Saccone et al., 2020). A study carried out in Israel stated that 70% and 59.2% of pregnant women suffered severe and extremely severe anxiety regarding fetal health and their exposure to virus infection, respectively (Taubman-Ben-Ari et al., 2020). In Belgium, serious depression symptoms and severe anxiety were reported in 25.3% and 8.4% of pregnant women during the pandemic period, respectively (Ceulemans et al., 2020).

The increased depression, anxiety, and stress levels of pregnant women during the pandemic period have also caused a change in their obstetric decisions. It has been observed that these changing obstetric choices arise from the fear of harm to the fetus. In the comparative studies conducted in Wuhan, pandemic region of China, and Chongqing, the city less affected by the pandemic, it was found that the anxiety levels of pregnant women were higher in Wuhan (24.5% vs. 10.4%), and the

number of women who preferred cesarean delivery was higher (12.66 vs. 6.01%). During this period, the number of women choosing a cesarean section, bottle feeding, and postnatal rest was higher than in the past, particularly in Wuhan. Furthermore, the frequency of prenatal care was also observed to decrease (Liu et al., 2020). In another study, the rate of preferring to give birth at home was reported to increase from 1.4% to 2.7% after the COVID-19 outbreak (Moyer et al., 2020).

The coping response is also associated with a person's experience of stress. In his study, McCrae has concluded a relationship between stress reason and individuals' coping mechanisms, and stress reason significantly affects the coping mechanism (McCrae, 1984). Among those who were using positive religious coping, it was observed that their level of psychological stress was low, personal development was high, and more positive evaluations were made in the answers to the questions about the cause, meaning, and acknowledgment of the event. Moreover, they had positive religious coping responses such as self-knowledge, self-awareness, communication with God, believing in God's discretion, trust, and acquisition (Pargament et al., 1998). Negative religious coping is a form of being seriously angry with the existence of problems and can cause an adverse effect, such as spiritual dissatisfaction. Individuals who experience spiritual dissatisfaction or distress may feel abandoned by God and believe that they are being punished. Individuals, who use negative religious coping, often blame others and express their dissatisfaction with people. They cannot make sense of the event they experienced or consider them a loss or damage (George et al., 2002; Hackney & Sveers, 2003). Stressful events may lead to obstetric complications and make pregnant women highly susceptible to psychological disorders such as anxiety and depression (Vitorino et al., 2018). In the present study, the pregnant women worrying about their health during the COVID-19 pandemic revealed higher mean scores of positive religious coping than those who did not worry about their health. This finding can be interpreted as that pregnant women's concerns about their health are more manageable than their worries about their baby's health. It was observed that the pregnant women, who were not concerned about their baby's health during the COVID-19 pandemic, had significantly higher average scores in negative religious coping than those concerned about their baby's health. The pregnant women who were not worried about their baby's health showed more negative (maladaptive) religious coping behaviors. This situation can be attributed to future anxiety, inability to control the fetus' health and unknown possible adverse influences of COVID-19 treatment on the fetus. Inevitably, this situation that the COVID-19 pandemic treatment's fetal effect has not yet been confirmed can cause an increase in mental disorders, such as anxiety among pregnant women. It has been reported that religiosity and spirituality are associated with better mental health, and pregnant women with higher religiosity and spiritual coping level have low anxiety (Mann et al., 2008). In a study conducted in Spain, overt emotional expressions and religious coping were found to increase the depression and anxiety symptoms among pregnant women in the third trimester, while social support reduced these symptoms (Peñacoba-Puente et al., 2013). In the present study, positive religious coping levels of the pregnant women in the third trimester were determined higher than those in the first and second trimesters. This situation can be attributed to the fact that as the birth approaches, pregnant women become aware of

the birth process and trust God, and their belief that they can healthily complete the birth, strengthens and thus, their depression, anxiety, and stress levels decrease in the third trimester compared to the second trimester.

Religious coping is associated with the physical and mental health consequences of a wide variety of critical life situations (Bhat et al., 2015). In the current study, a weak positive correlation was observed between the positive religious coping subscale and the depression subscale of the DASS-21. Lucero et al. investigated the relationship between religious coping strategies and mental health of 178 primigravida women. They revealed that negative religious coping strategies are associated with high depression and anxiety and low satisfaction with pregnancy (Lucero et al., 2013). In a study involving high-risk Brazilian pregnant women, poor mental health outcomes were associated with only negative religious coping strategies. Unlike, Vitorino et al. found no relationship between positive RCS and depressive symptoms and concluded that RCS did not protect against depressive symptoms (Vitorino et al., 2018). The reasons for getting high positive religious coping skills among pregnant women in the current study may be due to the facts that the research was conducted during the COVID-19 pandemic that the pregnant women tried to complete the pregnancy process in isolation at home; consequently, nearly half of the pregnant women showed severe depressive symptoms.

The current study was conducted in a province in the Mediterranean region of Turkey, and the generalizability of its results is limited. Besides, all the research participants were Muslim, and the results could not be compared to those with different religious beliefs. In addition, since there are no studies in the literature revealing the relationship between religious coping strategies and depression, anxiety and stress levels of pregnant women during the COVID-19 pandemic period, the current study was discussed with similar studies conducted before the pandemic.

Conclusions

Infectious diseases, isolation, social distance, and extreme daily life changes may increase pregnant women's vulnerability to psychiatric disorders such as depression, anxiety, and stress and make it difficult to cope with them. In this study, 74.6% of the pregnant women were worried about their health, whereas 85.9% had concerns about the fetus' health during the COVID-19. It was found that 19.9% of the pregnant women had extremely severe depression, 97.9% had extremely severe anxiety, and 52.3% had severe stress symptoms. The pregnant women who were worried about their health during the COVID-19 pandemic were observed to show more positive religious coping than those who were not concerned. Besides, the pregnant women who were not worried about the fetus' health during the COVID-19 pandemic were detected to have more negative religious coping than those concerned. This finding also supports that prenatal care provided by healthcare professionals positively affects mothers' mood and fetus' health; however, spiritual care along with prenatal care can be more assistive for the mother's and fetus' health. A weak positive correlation was observed between positive religious coping and depression and a very weak negative correlation between negative religious coping and depression in the

study. In light of these results, it is recommended that nurses working in the gynecology departments should communicate with pregnant women before birth, conduct psychosocial evaluations, and provide online training and counseling more sensitively during this pandemic process. Further studies can expand the knowledge of the psychological implications of COVID-19 on women in the perinatal period and broadly examine, for example, differences between countries, religions, the women's support systems' role, and the possible consequences of the postpartum period.

Declarations

Conflict of interest The authors have no conflicts of interest to declare that are relevant to the content of this article.

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