SPIRITUAL WELL-BEING AND PSYCHOSOCIAL HEALTH AMONG PREGNANT WOMEN DURING THE COVID-19 PANDEMIC: A CROSS-SECTIONAL STUDY

COVID-19 PANDEMİSİ DÖNEMİNDE GEBE KADINLARDA RUHSAL İYİ HAL VE PSİKOSOSYAL SAĞLIK: KESİTSEL BİR ÇALIŞMA

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ABSTRACT

Background: The aim of this study was to examine the association between spiritual well-being and psychosocial health among pregnant women during the COVID-19 pandemic

Method: This cross-sectional online survey was conducted with 221 pregnant women in Turkey between November and December 2020. Data were collected using the Pregnancy Psychosocial Health Assessment Scale and the Spirituality Scale. Pearson correlation analysis and multiple linear regression analysis (enter method) were performed.

Result: The mean scores of the participants were 3.24 for psychosocial health and 105.92 for spiritual well-being. A weak but statistically significant negative correlation was found between psychosocial health and spiritual well-being ($r = -0.234$, $p = 0.001$). In the multivariate regression analysis, education level, employment status, and income level were identified as significant positive predictors of spiritual well-being, whereas knowledge about the effects of COVID-19 on pregnancy was identified as a significant negative predictor.

Conclusion: The findings indicate that spiritual well-being among pregnant women during the COVID-19 pandemic is associated with sociodemographic factors and COVID-19–related knowledge, highlighting the importance of considering multiple contextual factors when evaluating spiritual well-being in pregnancy.

Keywords: COVID-19, Pregnancy, Psychosocial Health, Spirituality

ÖZET

Giriş: Bu çalışmanın amacı, COVID-19 pandemisi sırasında hamile kadınlar arasında manevi iyilik hali ile psikososyal sağlık arasındaki ilişkiyi incelemektir.

Metot: Bu kesitsel çevrimiçi anket, Kasım ve Aralık 2020 tarihleri arasında Türkiye'de 221 hamile kadınla gerçekleştirilmiştir. Veriler, Gebelik Psikososyal Sağlık Değerlendirme Ölçeği ve Maneviyat Ölçeği kullanılarak toplanmıştır. Pearson korelasyon analizi ve çoklu doğrusal regresyon analizi (enter yöntemi) yapılmıştır.

Bulgular: Katılımcıların psikososyal sağlık puanlarının ortalaması 3,24, manevi iyilik hali puanlarının ortalaması ise 105,92 idi. Psikososyal sağlık ile manevi iyilik hali arasında zayıf ancak istatistiksel olarak anlamlı negatif bir korelasyon bulundu ($r = -0,234$, $p = 0,001$). Çok değişkenli regresyon analizinde, eğitim düzeyi, istihdam durumu ve gelir düzeyi manevi iyilik halinin anlamlı pozitif belirleyicileri olarak tanımlanırken, COVID-19'un gebelik üzerindeki etkileri hakkındaki bilgi anlamlı negatif bir belirleyici olarak tanımlandı.

Sonuç: Araştırma bulguları, COVID-19 pandemisi sırasında hamile kadınlar arasında manevi iyilik halinin sosyodemografik faktörler ve COVID-19 ile ilgili bilgiyle ilişkili olduğunu göstermekte olup, hamilelikte manevi iyilik halini değerlendirirken birden fazla bağlamsal faktörün dikkate alınmasının önemini vurgulamaktadır.

Anahtar Kelimeler: COVID-19, Gebelik, Psikososyal Sağlık, Maneviyat

INTRODUCTION

The novel coronavirus disease (COVID-19), which emerged in Wuhan, China, in December 2019, has had a global impact (Zhu et al., 2020). The World Health Organization (WHO) defined the coronavirus disease as an emergency and declared a pandemic in March 2020 (WHO, 2020).

Coronavirus infects people of all ages. Risky groups can be easily affected by this infection in terms of transmission rate, easy spread and mortality rate (Ovalı, 2020). Pregnancy is considered a risky period as it may increase the risk of infection due to physiological changes (Yılmaz et al., 2020).

Pregnant women face serious challenges and risks during the pandemic (Kara et al., 2021). Reducing contact with other family members and friends, not being able to get help in providing care for the child, disruption of daily routine, fear of losing one's own and one's partner's job, and worrying information about the pandemic are just some of the difficulties experienced by pregnant women during the pandemic (RCOG, 2020). All pregnant women experience short- and long-term mental health problems due to these stressors (Dolatian et al., 2017). Additionally, issues such as changing family relationships and increased domestic violence during the epidemic may negatively affect the mood of pregnant women (Milne et al., 2020). For example, in studies conducted to investigate the effects of the COVID-19 pandemic on pregnant women, participating women experienced symptoms such as mood changes, anxiety, depression, stress, anxiety, post-traumatic stress disorder, and suicidal ideation (Saccone et al., 2020; Berthelot et al., 2020; Durankus and Aksu, 2020; Kara et al., 2021). Financial uncertainties brought by the pandemic also cause anxiety in pregnant women (Thapa et al., 2020). As a natural consequence of these symptoms, the psychosocial health of pregnant women is affected.

Psychosocial health is defined as a person's ability to adapt well to the social environment and the absence of negative effects in the social environment in which the person lives (Uzar and Erkan, 2019; Kara et al., 2021). Especially during life crises such as pregnancy, when psychosocial health is not good, the risk of experiencing health problems increases (Gümüşdaş, 2014). Therefore, since the COVID-19 pandemic and pregnancy can cause a life crisis, it is of great importance to evaluate the psychosocial health levels of pregnant women and their ability to adapt to this process.

It is stated in the literature that individuals with a high level of mental health adapt better to difficult living conditions and stressful situations (Abdollahpour and Khosravi, 2018; Karaşar and Canli, 2020). In recent years, the importance of birth and pregnancy as deep spiritual experiences has been emphasized, and the importance of spiritual well-being in preparing women for birth has been emphasized (Callister and Khalaf, 2010; Abdollahpour and Khosravi, 2018). Everything related to a person's inner world is considered spirituality. Spirituality is synonymous with spirituality (soul) and spirituality. Spirituality is a concept that includes religious beliefs but is broader than religious beliefs; It is a concept that includes people's relationships with other people, the universe and God, as well as making sense of their own inner world (Rowold, 2011). Additionally, spirituality is one of the coping mechanisms for the COVID-19 pandemic (Bentzen, 2020; Deng et al., 2021). During the COVID-19 pandemic, nurses played a critical role in protecting maternal and fetal health by providing accurate information, psychosocial support, and continuity of care. Therefore, allowing pregnant women to go through this period in a healthy way is important in terms of improving spiritual well-being. On the other hand, there is only one study investigating the spiritual well-being of pregnant women during the COVID-19 pandemic (Rodushan et al., 2020). The aim of this study is to determine the relationship between spiritual well-being and psychosocial health of pregnant women during the COVID-19 pandemic.

MATERIALS AND METHODS

Design and participants

This descriptive and cross-sectional study was conducted between November and December 2020 in Ankara, the capital of Turkey. The minimum sample size was calculated using GPower 3.1 software based on correlation analysis. Assuming a medium effect size (r = 0.30), an alpha level of 0.05, and a power of 0.95, the required minimum sample size was calculated as 134 participants. Considering potential data loss and to increase statistical power for multivariate analyses, the study was completed with 221 pregnant women. Post-hoc power analysis indicated that the achieved sample size provided more than 95% power at a 0.05 significance level. Recruitment criteria for the study were: being between the ages of 18 and 45, being literate, having no communication problems, having no history of a risky pregnancy, having no history of psychiatric illness, and being willing to complete an online survey.

Data collection tools
The study data were collected with the Pregnant Woman Information Form (PWI), Pregnancy Psychosocial Health Assessment Scale Pregnant Woman Information Form (PPHAS) and Spirituality Scale (SS).

Data collection

Pregnant Woman Information Form
The form consists of items that question the sociodemographic characteristics, obstetric characteristics, and knowledge levels and attitudes of participating pregnant women about COVID-19. (Saccone et al., 2020; Berthelot et al., 2020; Durankus and Aksu, 2020; Kara et al., 2021).

Pregnant Woman Information Form
The scale developed by Yıldız is used to evaluate the psychosocial health of pregnant women and consists of 46 items and 6 subscales; In this scale, the average score is determined by dividing the score obtained from the general scale by the number of items, and the results vary between 1 and 5, with lower scores indicating worse psychosocial health and 1 point indicating very poor psychosocial health. The Cronbach alpha value reported for the scale is 0.93 (Yıldız, 2011). In this study, Cronbach's alpha coefficient was found to be 0.73.

Spirituality Scale
The scale developed by Turgay (2018) is designed to evaluate the spirituality of young people and adults and measure the level of searching for the meaning of life, feeling of devotion to a supreme/transcendent creator (God), and religious belief; The minimum and maximum scores that can be obtained from the scale are 27 and 135, respectively, and the higher the score, the higher the participant's level of spirituality. The Cronbach alpha value reported for the scale is 0.90 (Turgay, 2018). Cronbach's alpha value of this study was found to be 0.93.

Procedure
Data was collected between November and December 2020. Considering the current pandemic conditions and social distance measures, the surveys were uploaded to Google Forms, and while creating the online form, standardizations were made to ensure that pregnant women could respond only once. Participating pregnant women were informed about the study through the online survey link shared via WhatsApp and were asked to fill out the survey. requested; The data collected was checked daily, participants took approximately 15-20 minutes to complete the survey, and participation was voluntary and anonymous.

Ethical considerations
This research adhered to the ethical standards outlined in the Declaration of Helsinki. Prior to commencement, approval was obtained from the Non-interventional Clinical Research Ethics Committee of Ankara Medipol University. (Decision date and number: 74791132-604-01.01 / 444). Additionally, permission for scientific studies concerning COVID-19 was granted by the Republic of Turkey Ministry of Health (Form code: 2020-10-05T22_21_15). Informed consent was obtained from all pregnant women participating in the study.

Data analysis
For the analysis of the data, the SPSS 21.0 software (SPSS, Inc., Chicago, IL, USA) was used. Whether the variables were normally distributed was evaluated using the Shapiro Wilks test. Descriptive statistics were generated for all the variables. The student's t-test and one-way ANOVA were used to compare the scores obtained from the Spirituality Scale in terms of some socio-demographic and obstetric variables. Whether the subscale scores of the scales were normally distributed was evaluated with the skewness and kurtosis coefficients. Pearson's correlation analysis was used to investigate the association between the scores obtained from the PPHAS and SS. Multivariate linear regression analysis (enter method) was used to determine the factors associated with spirituality in pregnant women.

RESULTS

Characteristics of the participating pregnant women
Of the participating pregnant women, 48.9% were ≥31 years old, 48.4% were high school graduates, 77% did not work and 62% were married for 1-5 years, 49% were primigravidae, 81% were not smokers and 67% were knowledgeable about the effects of COVID-19 on pregnancy.

Mean scores the participating pregnant women obtained from the the SS and PPHAS

The mean scores the participating pregnant women obtained from the SS and PPHAS are 105 and 3.76 respectively in Table 1.

Table 1. The mean scores obtained from the SS and PPHAS

Scales	Mean ± SD	Min–Max	Score Range
Spirituality Scale	105.92±18.59	63-133	27–135
Pregnancy Psychosocial Health Assessment Scale	3.24±0.24	2.87-3.76	1-5

Spiritual well-being scores of pregnant women differed significantly according to several sociodemographic characteristics (Table 2). Significant differences were observed across age groups (F = 31.579, p < 0.001) and educational levels (F = 19.208, p <0.001). Spiritual well-being scores were higher among unemployed women and those with a moderate income level compared with their counterparts (p < 0.001). A significant difference was found according to duration of marriage (p = 0.043), whereas no significant difference was observed according to the number of pregnancies (p = 0.309). In addition, pregnant women who were knowledgeable about the effects of COVID-19 on pregnancy and those who had received information from healthcare professionals had higher spiritual well-being scores (p < 0.001).

Table 2. Comparison of the scores obtained from the SS by the participating pregnant women in terms of some of their characteristics (221)

	n	%	Mean ± SD	t/F	p
Age					
≤25 years	33	14.9	121.00±4.37	31.579**	p<0.001
26-30 years	80	36.2	95.57±19.1		
≥31 years	108	48.9	108.99±16.53		
Educational status					
Primary school	24	10.9	86.33±12.03	19.208*	p<0.001
High school	107	48.4	110.43±18.76		
License	90	40.7	105.78±16.42		
Employment status					
Employed	49	22.2	118.20±3.08	-4,786*	p<0.001
Not employed	172	77.8	124.94±9.71		
Income status					
Moderate	116	52.5	113.13±11.23	5.886*	p<0.001
Good	105	47.5	99.40±21.37		
Duration of Marriage					
1-5 years	134	62.0	124.38±8.34	2.036	p=0.043
6-10 years	82	38.0	121.81±10.15		
The Number of Pregnancies					
1	108	48.9	124.09±8.80	1.020	p=0.309
2≥	113	51.1	122.84±9.59		
Being knowledgeable about the effects of COVİD-19 on pregnancy					
Yes	148	67.0	126.00±7.54	6,448	p<0.001
No	73	33.0	118.27±9.88		
Having been informed about the effects of COVID-9 on the maternal and fetal health by the health personnel providing care	91	41.2	113.53±10.98	-5.408	**p<0.001**
Yes	130	58.8	100.60±20.87		
No					

Correlation between the mean scores the participating pregnant women obtained from the SS and PPHAS

Pearson correlation analysis showed a weak negative correlation between psychosocial health and spiritual well-being (r = −0.234, 95% CI: −0.35 to −0.10, p = 0.001; n = 221), indicating that higher spiritual well-being scores were associated with lower psychosocial health scores as measured by the PPHAS.

Predictive factors of spirituality during pregnancy

Multiple linear regression analysis was performed to identify factors associated with spiritual well-being among pregnant women. Education level (β = 0.311, p < 0.001), employment status (β = 0.581, p < 0.001), and income level (β = 0.506, p < 0.001) were identified as significant positive predictors of spiritual well-being. Being knowledgeable about the effects of COVID-19 on pregnancy was a significant negative predictor (β = −0.434, p < 0.001). Age, duration of marriage, receiving information from healthcare professionals, and psychosocial health were not significant predictors in the multivariate model (p > 0.05).

Table 3. Predictive factors of spirituality during pregnancy

Variables	B	SE	β	t	p
Education level	4.336	0.940	0.311	4.612	<0.001
Employment status	12.734	1.653	0.581	7.705	<0.001
Income level	9.225	1.697	0.506	5.437	<0.001
Knowledge about COVID-19 effects	-8.393	1.526	-0.434	-5.499	<0.001
Age	0.414	1.039	0.033	0.398	0.691
Duration of marriage	-0.657	1.709	-0.035	-0.384	0.701
Information from healthcare professionals	-0.534	1.325	-0.029	-0.403	0.687
Psychosocial health	0.976	0.539	0.157	1.810	0.072

R= 0.669, Adj.R^2 =0.44, F= 21.52, p<0.001

Adj.R^2: Adjusted R square; B: Partial regression coefficient; β: Standard partial regression coefficient; 95% CI: 95% confidence interval

DISCUSSION

In this study, the mean score obtained from the PPHAS 3.24±0.24 was, indicating that the participating pregnant women had a moderate level of psychosocial health during the COVID-19 pandemic. Although previous studies have stated that pregnant women's psychosocial health levels are high (Bilgiç and Bilgin, 2021; Abdollahpour and Khosravi, 2018), studies conducted during the pandemic have revealed that COVID-19 negatively affects the psychosocial health of pregnant women (Mortazav et al., 2021). This finding suggests that the COVID-19 pandemic negatively affects the psychosocial health of pregnant women and that psychosocial health during pregnancy is an important problem that needs to be addressed.

In this study, psychosocial health was observed to have a negative impact on spiritual well-being; Pregnant women with high levels of psychosocial health have lower levels of spirituality. However, some studies in the literature suggest that positive spiritual coping methods improve psychosocial health by reducing stress and anxiety (Rowold, 2011). The reason why this study gave such a result is probably the socio-cultural environment in which the study was conducted. Additionally, it can be said that more studies are needed to reveal the effects of psychosocial health on spirituality during pregnancy.

Throughout history, in different cultures, pregnancy and birth have been believed to positively affect women's spirituality (Abdollahpour and Khosravi, 2018). The average scores obtained from the Spirituality Scale by pregnant women participating in this study and the scores obtained in a study

conducted in Iran during the COVID-19 pandemic were 105.92 ± 18.59 and 99.13 ± 14.21, respectively (Rodushan et al., 2020). In a study conducted in Turkey before the COVID-19 pandemic, the average score obtained by participating pregnant women on the Spirituality Scale was 125.59 (Bilgic and Çıtak, 2021), indicating that pregnant women in Turkey had higher levels of spirituality before the pandemic.

As the mother's spirituality level increases during pregnancy, the pregnancy-related stress level decreases. Research shows that spiritual interventions such as prayer therapy, listening to the Quran, ,the holy text of Islam, and spiritual interventions aimed at coping with stressful situations such as religious conversations reduce the anxiety and depression levels of pregnant women and positively affect their coping behaviors (Beiranvand et al., 2014); Kazemi et al., 2017). Therefore, this finding highlights the importance of planning interventions to improve the spiritual well-being of pregnant women during the pandemic period.

This study found an inverse relationship between age and spirituality: As age decreased, spirituality increased. In a study conducted during the pandemic, it was found that age was not associated with spirituality, but pregnant women between the ages of 25-30 received higher spirituality scores than other groups (Rodushan et al., 2020). The research was conducted considering that there was a gap in the literature of pre-pandemic studies examining the impact of pregnant women's age on their spirituality. Analysis of the results showed that the effect of age on spirituality varied across different age groups. This variability may result from differences in the characteristics of the groups, research designs, measurement tools, and cultural characteristics of the participants.

In this study, another factor that affected participants' spiritual well-being was their knowledge about the effects of COVID-19 on maternal and fetal health. Informed participants achieved higher spiritual well-being scores. The gap in the literature regarding studies examining the effect of being informed on spirituality in pregnant women during the COVID-19 pandemic makes it difficult to compare this result. However, in the current global situation where the number of deaths related to COVID-19 is updated and published daily, it is emphasized that spirituality can be a source of peace in societies coping with the pandemic (Fardin, 2020). Those who are informed know the stressors they are likely to encounter and what lies ahead. People may turn to greater spirituality to cope with these challenging situations. The high level of spirituality supports this view.

Limitations of the Study
Some limitations of the study should be noted. Firstly, the survey was administered online, thus preventing a face-to-face evaluation of the participant. Secondly, it relies on a convenience sample that cannot be considered representative of the whole population of pregnant women in Turkey.

CONCLUSION
The COVID-19 outbreak was determined to affect the psychosocial health and spirituality of pregnant women. It was also determined that variables such as age, alcohol consumption and psychosocial health during pregnancy had an effect on spiritual well-being. Therefore, it is recommended that interventions aimed at improving psychosocial health levels of pregnant women and their spiritual well-being should be conducted.

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