

## Araştırma makalesi Research article

# Examining the Relationship Between Spiritual Well-Being and Pregnancy Distress in Pregnant Women



İlknur GÖKŞİN<sup>1</sup>, Zekiye SOYKAN SERT<sup>2</sup>

### ABSTRACT

**Aim:** This study was conducted to determine the relationship between pregnant women's spiritual well-being levels and their pregnancy-related stress.

**Material and Methods:** The sample of the descriptive and correlational study consisted of 250 pregnant women aged 18 years and over with the 12th week of pregnancy and above who were admitted to the Obstetrics and Gynecology outpatient clinic of a Training and Research Hospital between November 2020 and April 2021 and who agreed to participate in the study. The data were collected using the Personal Information Form, Spiritual Well-Being Scale (SWBS), and Tilburg Pregnancy Distress Scale (TPDS). The Statistical Package for the Social Sciences (SPSS) statistical program was used to evaluate the data.

**Results:** The mean age of the pregnant women was 26.5±5.3 years. It was determined that 39.6% of the pregnant women were secondary school graduates, 72% had planned pregnancies, 31.6% were primiparous and 60% were in the third trimester. A statistically significant, negative, and weak relationship was found between the spiritual well-being levels of pregnant women and pregnancy-related stress ( $r=-0.33$ ,  $p\leq 0.001$ ).

**Conclusion:** In this study, the spiritual well-being of pregnant women was determined to be high, and pregnancy-related stress was found to be low. However, it was found that as the spiritual well-being of pregnant women increased, their pregnancy-related stress decreased.

**Keywords:** Pregnant women, pregnancy distress, spirituality, spiritual well-being

### ÖZ

**Gebe Kadınlarda Spiritüel İyi Oluş ve Gebelik Distresi Arasındaki İlişkinin İncelenmesi**

**Amaç:** Bu çalışma gebelerin spiritüel iyilik oluş düzeyleri ile gebeliğe bağlı stresleri arasındaki ilişkiyi belirlemek amacıyla yapılmıştır.

**Gereç ve Yöntem:** Tanımlayıcı ve ilişki arayıcı araştırmanın örneklemini Kasım 2020-Nisan 2021 tarihleri arasında bir Eğitim ve Araştırma Hastanesi Kadın Hastalıkları ve Doğum polikliniğine başvuran ve çalışmaya katılmayı kabul eden 18 yaş ve üzerindeki gebeliğinin 12. hafta ve üzerinde gebelik haftasındaki 250 gebe kadın oluşturmuştur. Veriler Kişisel Bilgi Formu, Spiritüel İyi Oluş Ölçeği (SİÖÖ) ve Tilburg Gebelikte Distres Ölçeği (TGDÖ) toplanarak elde edilmiştir. Verilerin değerlendirilmesinde Statistical Package for the Social Sciences (SPSS) istatistik programı kullanılmıştır.

**Bulgular:** Gebelerin yaş ortalaması 26.5±5.3 yıldır. Gebelerin %39.6'sının ortaokul mezunu olduğu, %72'sinin planlı gebelik yaşadığı, %31.6'sının primipar olduğu ve %60'ının 3. trimesterde olduğu belirlenmiştir. Gebelerin spiritüel iyi oluş düzeyleri ile gebeliğe bağlı stresleri arasında istatistiksel olarak anlamlı, negative yönde ve zayıf bir ilişki bulunmuştur ( $r=-0.33$ ,  $p\leq 0.001$ ).

**Sonuç:** Bu çalışmada gebelerin spiritüel iyilik halleri yüksek, gebeliğe bağlı stresleri ise düşük olarak belirlenmiştir. Bununla birlikte, gebelerin spiritüel iyilik halleri arttıkça gebelik ile ilişkili streslerinin azaldığı bulunmuştur.

**Anahtar kelimeler:** Gebe, gebelik distresi, maneviyat, manevi iyi oluş

<sup>1</sup>Assist. Prof., Aksaray University Faculty of Health Sciences, Department of Nursing, Aksaray, Turkey, E-mail: ilknurgoksin@hotmail.com, Phone number: +90 382 288 27 80, ORCID: 0000-0002-1125-2161

<sup>2</sup>Assoc. Prof., Aksaray University Education and Research Hospital, Department of Gynecology and Obstetrics, Aksaray, Turkey, E-mail: zekiyesoykan@hotmail.com, Phone number: +90 382 502 20 00, ORCID: 0000-0003-1496-3732

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## INTRODUCTION

Pregnancy is a physiological period for women, it is also a time of significant biological, psychological, and social change and a period of high risk for exposure to factors that can lead stress<sup>1-3</sup>. Physical symptoms experienced during pregnancy, lifestyle and role changes, parenting concerns, changes in family and social life, deterioration of body image, unwanted pregnancies, fear of childbirth, and concerns about the health of the baby can be sources of stress for women, and these factors can cause women to experience various psychosocial health problems<sup>4-8</sup>.

In every period of human life, one of the mechanisms for coping with psychological problems has been religion, and the other has been spirituality<sup>9-11</sup>. Spirituality is a crucial guide in the problem-solving behavior of individuals, it gives meaning to life. It helps us find peace in crises, and it is known that those with high spirituality adapt better to life's circumstances and challenges<sup>6,12,13</sup>. Spiritual well-being is closely related to patience, resilience, closeness to God, purpose, and meaning in life<sup>14</sup>. Therefore, spiritual well-being can improve mental health and reduce anxiety and depression<sup>15-18</sup>. Spiritual well-being also positively affects women's mental health during pregnancy<sup>10</sup>. It has been observed in the literature that pregnant women with high levels of anxiety and stress have low levels of religious/spiritual coping and that religious attitudes and the psychological well-being of pregnant women reduce their levels of anxiety<sup>19,20</sup>. In addition, it was found that the religious attitudes of women who had risky pregnancies affected their anxiety and spiritual well-being, and religious attitudes increased women's psychological well-being and decreased their anxiety levels<sup>20</sup>. Chehrazi et al. (2021) showed that spiritual well-being reduces anxiety and stress during pregnancy and increases positive coping in pregnant women<sup>21</sup>.

The evaluation of the spiritual dimension of the human being is of great importance for nursing, which is a profession that provides direct service to people, and holistic nursing care, which emphasizes that the spiritual dimension of the individual is important as well as the physical, emotional, and psychosocial dimension of the individual, cannot be separated from spiritual care. Therefore, considering the physical and psychological changes that pregnancy brings, the aim was to evaluate the level of spiritual well-being, which is one of the factors that enable pregnant women to cope with the stress caused by these changes and its relationship with the stress level during pregnancy.

### Aim

This study has been carried out to determine the relationship between spiritual well-being and distress levels of pregnant women.

## MATERIAL and METHODS

### Study Design

This descriptive and correlational study was conducted between November 2020 and April 2021 with pregnant women aged 18 years and older at 12 weeks and over who

applied to the Obstetrics and Gynecology outpatient clinic of a University Training and Research Hospital.

The population of the study consisted of pregnant women aged 18 years and over at 12 and over weeks of gestation who applied to the gynecology and obstetrics outpatient clinic of a Training and Research Hospital in a province. After reviewing similar studies, the necessary sample size calculation was performed. As a result of the power analysis, the power of the study was accepted as 80%, the type 1 error was accepted as 5% with an effect size of 0.164, and the required sample size for the study was determined to be 232 pregnant women<sup>22</sup>. The study was completed with 250 pregnant women in the 12th week of pregnancy and above.

### Data Collection Tools

Sociodemographic characteristics such as age, education level, and employment status of the spouse, as well as obstetric characteristics such as gestational age, number of pregnancies, and planned pregnancy status, were obtained from the Personal Information Form.

Spiritual Well-Being Scale-SWBS was created by Ekşi and Kardaş (2017)<sup>23</sup>. The scale has a total of 29 items. The scale has three sub-dimensions. These are: "Transcendence", "Harmony with Nature" and "Anomie". The minimum score is 29, and the maximum score is 145. As the scores increase, spiritual well-being increases. Cronbach's alpha value of the scale was found to be 0.88. The Cronbach alpha values of the sub-dimensions of the scale are 0.95 for transcendence, 0.86 for harmony with nature, and 0.85 for anomie<sup>23</sup>. In this study, the reliability coefficient value of the scale was determined to be 0.86.

The Tilburg Pregnancy Distress Scale-TPDS was developed by Pop et al. (2011)<sup>24</sup>. Turkish validity and reliability of the scale was developed by Çapık and Pasinlioğlu (2015)<sup>25</sup>. The scale consists of 16 items. The scale cut-off point (28 and above) indicates that pregnant women are at risk for distress<sup>24</sup>. In the Turkish validity and reliability study, the reliability coefficient of the Tilburg Distress in Pregnancy Scale was 0.83, the reliability coefficient of the partner involvement subscale was  $\alpha = 0.72$ , while the reliability coefficient of the negative affect subscale was  $\alpha = 0.83$ . In this study, the Cronbach's alpha value of the scale was found to be 0.80.

### Data Collection

Due to the COVID-19 pandemic, the data within the study was obtained through the link created by the Google Forms application. For this purpose, pregnant women who applied to the Gynecology and Obstetrics Outpatient Clinic of the Provincial Training and Research Hospital were informed about the study, and the created Google Forms link was sent to the volunteer pregnant women who wanted to be included in the study through the social media application WhatsApp by maintaining social distance rules (due to the pandemic).

### Data Analysis

SPSS software, version 24 (Statistical Package for the Social Sciences, IBM SPSS Statistics for Windows, Version 24.0. IBM Corp: Armonk, NY, USA) was used in data analysis. Sociodemographic and obstetric characteristics of pregnant women were reported using descriptive statistics such as

frequency, percentage, mean, and standard deviation (SD). The suitability of the data for normal distribution was tested with the Kolmogorov-Smirnov test. The Mann-Whitney U and the Kruskal-Wallis tests were used for pairwise comparisons and comparisons of more than two variables, respectively. The Spearman correlation test was used to detect the relationship between variables. Statistical significance was accepted as  $p < 0.05$ .

**Ethical Considerations**

Written permissions were obtained from the Provincial Directorate of Health and the Human Research Ethics Committee. Informed consent was obtained from pregnant women who agreed to be included in the sample after being informed about the study. The study was carried out per the principles of the Declaration of Helsinki.

**Limitations**

Because the study was conducted in a single center in the Central Anatolia region of Turkey, the results of the study cannot be generalized to all pregnant women.

**RESULTS**

The mean age of the pregnant women participating in the study was  $26.5 \pm 5.3$  years. The pregnancies under the age of

35 years were 92%. It was found that 39.6% of the pregnant women were secondary school graduates, 89.2% were unemployed, 90.8% had a partner who was employed, 76% had a nuclear family type, and 72% had planned pregnancies. It was found that 31.6% of the pregnant women were primiparous, and 60% were in the 3rd trimester (Table 1).

When the mean total scores of the SWBS were analyzed according to the educational status of the pregnant women, it was determined that university graduates had the highest mean score ( $127.62 \pm 11.62$ ) and the mean scores of the SWBS of university graduates were statistically significantly higher than those of primary and secondary school graduates ( $p = 0.017$ ). A statistically significant difference was found between the employment status of the pregnant women and the total mean score of spiritual well-being, and it was determined that the SWBS scores of pregnant women who were not employed were higher ( $127.77 \pm 14.23$ ) ( $p = 0.028$ ). It was found that the age of the pregnant woman, employment status of the spouse, family type, number of pregnancies, gestational week, and pregnancy planning status did not create a statistically significant difference between the averages ( $p > 0.05$ ) (Table 1).

**Table 1. Sociodemographic and Obstetric Characteristics of Pregnant Women and The Distribution of Their Mean Scores on the SWBS and TPDS (n=250)**

Characteristics	n (%)	SWBS ( $\bar{X} \pm SD$ )	Test and p Value	TPDS ( $\bar{X} \pm SD$ )	Test and p Value
<b>Age</b> (Mean: $26.56 \pm 5.38$ ; min:18, max:40)					
<b>Age</b>					
18-26 years	135(54)	$123.41 \pm 11.88$	$\chi^2 = 1.325$ $p = 0.516$	$13.87 \pm 7.31$	$\chi^2 = 1.262$ $p = 0.532$
27-34 years	95(38)	$123.77 \pm 12.16$		$15.13 \pm 7.15$	
35 years and above	20(8)	$126.70 \pm 11.42$		$15.10 \pm 8.32$	
<b>Education status</b>					
Primary school	40(16.0)	$120.52 \pm 13.39$	$\chi^2 = 10.150$ $p = 0.017$	$14.40 \pm 8.19$	$\chi^2 = 3.484$ $p = 0.323$
Secondary school	99(39.6)	$122.63 \pm 11.16$		$13.66 \pm 7.24$	
High school	61(24.4)	$124.77 \pm 11.76$		$14.47 \pm 6.96$	
University	50(20.0)	$127.62 \pm 11.62$		$16.02 \pm 7.21$	
<b>Employment status</b>					
Employed	27(10.8)	$123.33 \pm 11.57$	$z = -2.198$ $p = 0.028$	$14.39 \pm 7.24$	$z = -0.049$ $p = 0.961$
Unemployed	223(89.2)	$127.77 \pm 14.23$		$14.88 \pm 8.17$	
<b>Employment status of partner</b>					
Employed	227(90.8)	$123.87 \pm 11.82$	$z = -0.244$ $p = 0.807$	$14.42 \pm 7.32$	$z = -0.283$ $p = 0.777$
Unemployed	23(9.2)	$123.21 \pm 13.28$		$14.69 \pm 7.65$	
<b>Family type</b>					
Nuclear family	190(76.0)	$124.63 \pm 11.61$	$z = -1.908$ $p = 0.056$	$14.85 \pm 7.59$	$z = -0.931$ $p = 0.352$
Extended family	60(24.0)	$121.21 \pm 12.65$		$13.18 \pm 6.33$	
<b>Pregnancy planning status</b>					
Planned	180(72.0)	$124.25 \pm 12.30$	$z = -1.218$ $p = 0.223$	$13.28 \pm 6.59$	$z = -3.640$ $p \leq 0.001$
Unplanned	70(28.0)	$122.68 \pm 10.93$		$17.44 \pm 8.28$	
<b>Number of pregnancies</b>					
1	79 (31.6)	$126.16 \pm 11.77$	$\chi^2 = 5.607$ $p = 0.132$	$13.59 \pm 7.07$	$\chi^2 = 11.283$ $p = 0.010$
2	77 (30.8)	$123.03 \pm 12.69$		$12.68 \pm 6.11$	
3	65 (26.0)	$122.60 \pm 11.40$		$17.06 \pm 7.92$	
Four and above	29 (11.6)	$122.20 \pm 11.11$		$15.62 \pm 8.16$	
<b>Week of pregnancy</b> (Mean: $27.96 \pm 9.04$ ; min:12, max:41)					
First Trimester (1-13 weeks)	18 (7.2)	$125.11 \pm 10.12$	$\chi^2 = 0.456$ $p = 0.796$	$11.05 \pm 4.98$	$\chi^2 = 3.947$ $p = 0.139$
Second Trimester (14-26 weeks)	82 (32.8)	$123.98 \pm 13.36$		$14.64 \pm 7.28$	
Third Trimester (27-41 weeks)	150(60.0)	$123.56 \pm 11.36$		$14.75 \pm 7.53$	

$\bar{X}$ : Mean, SD: Standard Deviation, z: Mann Whitney U test,  $\chi^2$ : Kruskal Wallis test

It was found that the mean score of TPDS of pregnant women with unplanned pregnancy was statistically significantly higher (17.44±8.28) than those with planned pregnancy (p≤ 0.001). The mean TPDS score of pregnant women with third pregnancies was statistically significantly higher than those with first and second pregnancies (p=0.010). It was determined that the variables of age, education status, employment status of the pregnant woman and her partner, family type, and gestational week did not create a significant difference between the averages statistically (p>0.05) (Table 1).

**Table 2. Mean Scores of Pregnant Women on the SWBS and Its Sub-Dimensions and TPDS and Its Sub-Dimensions (n=250)**

Scales	( $\bar{X}$ ±SD)	The smallest and largest value taken from the scale	The smallest and largest value that can be taken from the scale
<b>Spiritual Well-Being Scale</b>	123.81±11.93	86-145	29-145
Transcendence	67.25±6.69	40-75	15-75
Harmony with Nature	31.14±3.29	21-35	7-35
Anomie	25.42±5.91	10-35	7-35
<b>Tilburg Pregnancy Distress Scale</b>	14.45±7.33	0-41	0-48
Negative Affect	9.76±5.94	0-30	0-33
Partner Involvement	4.68±3.54	0-15	0-15

X: Mean, SD: Standard Deviation

**Table 3. The Relationship Between the Mean Total Scores of Pregnant Women on The SWBS and TPDS (n=250)**

Spiritual Well-Being Scale	Tilburg Pregnancy Distress Scale	
	<i>r</i>	-0.337
<i>p</i>	≤ 0.001	

r: Spearman's correlation, p: significance value

## DISCUSSION

Spiritual well-being is a concept that examines the individual's relationship with the self, environment, and God, including life and religious issues, and is one of the factors that can be effective in coping with pregnancy stress and positively affect mental health<sup>12,26-28</sup>. In this study, the spiritual well-being of pregnant women was found to be high, and pregnancy-related stress was found to be low. However, it was determined that as the spiritual well-being of pregnant women increased, their stress decreased. In studies conducted with pregnant women in the literature, it has been reported that pregnant women may be exposed to stressors such as familial and spousal problems, lack of social and emotional support during pregnancy, previous miscarriage, anxiety about the fetus, natural disasters, and exposure to violence during pregnancy and that pregnant women with high spiritual well-being can control pregnancy-related stressors more<sup>1,3,29</sup>. A study with 200 pregnant women showed that spiritual well-being can reduce pregnancy stress and state anxiety while increasing spiritual-positive coping<sup>21</sup>.

A study examining the role of spiritual/religious coping on depressive symptoms in high-risk and low-risk pregnant women found that negative spiritual/religious coping strategies of women with high-risk pregnancies were associated with worse mental health outcomes<sup>30</sup>. It was found that spiritually integrated cognitive-behavioral education applied for eight weeks to help pregnant women

The mean SWBS total score of the pregnant women was 123.81±11.93, the mean score of the transcendence sub-dimension was 67.25±6.69, the harmony with nature sub-dimension was 31.14±3.29, and the anomie sub-dimension was 25.42±5.91. The mean TPDS total score of the pregnant women was 14.45±7.33. The score for negative affect sub-dimension was 9.76±5.94, and the spousal involvement sub-dimension was 4.68±3.54 (Table 2).

A statistically significant, negative, and weak relationship was found between the level of spiritual well-being and pregnancy-related stress (*r* = - 0.337, *p*≤0.001) (Table 3).

cope with pregnancy stress significantly reduced stress, anxiety, and depression scores in pregnant women<sup>31</sup>. A study of 450 pregnant women across all three trimesters reported that spirituality and psychological well-being reduced pregnancy-specific stress, and pregnancy-specific stress decreased as pregnant women's spirituality increased during pregnancy<sup>32</sup>. Lucero et al. (2013) examined 178 pregnant women in the third trimester of pregnancy and reported that spirituality is a factor that reduces stress in women and their spouses and that low or lack of spirituality causes stress and anxiety in couples<sup>33</sup>. Bakır et al. (2021) observed that pregnant women concerned about their health during the COVID-19 pandemic showed more positive religious coping than those not<sup>3</sup>. In a study of 305 pregnant women exposed to domestic violence between 20 and 25 weeks of pregnancy, Rafati et al. (2023) found that increased spiritual well-being had a significant negative relationship with psychological distress<sup>29</sup>. Another study by Polat et al. (2022) which examined the spiritual well-being and trait anxiety levels of 137 pregnant women diagnosed with a high-risk pregnancy, found that the pregnant women had moderate levels of spiritual well-being and high levels of trait anxiety and that being religious increased spiritual well-being and decreased trait anxiety<sup>20</sup>.

In another study in the literature, it was stated that spirituality was one of the factors that could be effective in coping with the fear of childbirth, and it was found that the level of fear of childbirth was low, spiritual well-being was high, and fear of childbirth decreased as the level of spiritual

well-being increased<sup>2</sup>. The results of this study are similar to ours.

## CONCLUSION

This study found that pregnant women's spiritual well-being was high, and pregnancy-related stress was low. In addition, as their spiritual well-being increased, their stress decreased. In our study, the spiritual well-being of college graduates and unemployed pregnant women was found to be higher, and the stress levels of pregnant women with unplanned pregnancies were higher than those of pregnant women with planned pregnancies.

As part of the holistic care that must be provided to individuals, health professionals need to know that in addition to physical health, a woman's spiritual health must also be good to be in a state of wellness. Accordingly, for health professionals to approach women from a spiritual perspective, it is necessary to communicate with pregnant women, provide online education and counseling, and assess the mental health of pregnant women periodically using standardized measurement tools that are easy to administer and interpret. In addition, it is recommended that longer-term, experimental, and qualitative studies with varying sample sizes be conducted, including interventions to ensure the spiritual well-being of pregnant women.

**Ethics Committee Approval:** Approval was obtained from Aksaray University Human Research Ethics Committee (Date: 10/21/2020, Decision No: 2020/09-48).

**Conflict of Interest:** None.

**Funding:** None.

**Exhibitor Consent:** Informed consent was obtained from the participants.

### Author contributions

Study design: İG., ZSS

Data collection: İG, ZSS

Literature search: İG

Drafting manuscript: İG

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### Yazar katkıları

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