Research Article

The Relationship Between Perceived Spousal Support, Intolerance of Uncertainty, and Psychological Well-Being in High-Risk Pregnant Women



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ABSTRACT

Aim: This study aimed to examine the relationship between perceived spousal support, intolerance of uncertainty, and psychological well-being in high-risk pregnant women.

Material and Methods: This cross-sectional and correlational study was conducted with 323 high-risk pregnant women. Research data were collected using the Introductory Information Form, the Perception of Spousal Support in Pregnancy Scale, the Intolerance of Uncertainty Scale, and the Psychological Well-Being Scale. Data were analyzed using Pearson correlation analysis and linear regression analysis.

Results: The mean age of the pregnant women was 28.31±4.72, their mean score on the perception of spousal support scale was 53.24±9.95, the intolerance of uncertainty scale was 41.85±8.72, and the psychological well-being scale was 36.94±6.75. A weak negative correlation was found between the perception of spousal support and intolerance of uncertainty during pregnancy, and a low positive correlation was found between psychological well-being (p<0.05). No correlation was found between intolerance of uncertainty and psychological well-being (p>0.05).

Conclusions: While the perception of spousal support increases in pregnancy, intolerance of uncertainty decreases. In addition, the perception of spousal support positively affects psychological well-being. Spousal support should be considered in interventions and assessments for high-risk pregnant women.

Implication for nursing practice/management or policy: The findings of this study emphasise the importance of spousal support on the well-being of high-risk pregnant women. The results provide information that will help nurses protect and increase the well-being of high-risk pregnant women. Healthcare managers and service providers should strive to ensure that spouses are involved in maternal care.

Keywords: High-risk pregnancy, Psychological factors, Uncertainty

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INTRODUCTION

Pregnancy is a critical period for women because they experience significant physical, work-related, family-related, psychological, and emotional changes (Williamson et al., 2023). Any unpredictable problem that poses an actual or potential risk to the mother or fetus can turn a healthy pregnancy into a high-risk pregnancy (Nola Holness, 2018). It is reported that around 15% of all pregnancies develop a potentially life-threatening complication that calls for skilled care (World Health Organization, 2017). Problems experienced in pregnancy can lead to changes in mood and social relationships, and negative effects on the psychological well-being of women (Mirzakhani et al., 2023).

A high-risk pregnancy causes women to feel threatened, uncertain about the outcome of their pregnancy, and experience anxiety and fear (Mirzakhani et al., 2020; Mirzakhani et al., 2023). Studies show that women with high-risk pregnancies experience emotional and psychological problems such as stress, anxiety, anger, guilt, fear, sadness, frustration, hopelessness, and loneliness (Isaacs & Andipatin, 2020; Keten Edis & Kurtgöz, 2023; Mirzakhani et al., 2020). Almost 12.5% to 44.2% of high-risk pregnant women face depression (Tsakiridis et al., 2019). Negative emotions experienced in pregnancy negatively affect women's psychological well-being (Fagbenro et al., 2018). Low psychological well-being is associated with negative health behaviors during pregnancy, inadequate mother-infant attachment, adverse pregnancy and neonatal outcomes, postnatal growth and developmental disorders, and behavioral problems in childhood (Mirzakhani et al., 2020). Consequently, it is essential to protect psychosocial health during pregnancy.

The well-being of high-risk pregnant women increases when they receive social and emotional support from their spouses, family members, friends, and healthcare professionals (Mirzakhani et al., 2020). It is stated that spousal support, one of the basic supports during pregnancy, is a protective factor that reduces prenatal stress and anxiety (Ilska & Przybyła-Basista, 2017; Mirzakhani et al., 2023). Women with high-risk pregnancies expect their spouses to understand them and avoid actions that could worsen their health. They also expect their spouses to engage in activities that facilitate coping. Positive marital relationships can create positive emotions such as satisfaction, calmness, and hope, and reduce stress and anxiety (Mirzakhani et al., 2023).

Psychological and mental problems are more common in high-risk pregnant women than in healthy pregnant women (Çankaya & İbrahimoğlu, 2022; Williamson et al., 2023). Psychological problems experienced during pregnancy can negatively affect maternal and infant health in the prenatal, birth, and postnatal periods (Mirzakhani et al., 2020). Therefore, it is important to develop multicomponent interventions that promote the well-being of high-risk pregnant women. Additionally, it is stated that spousal support significantly helps pregnant women to cope with the problems they face (Mirzakhani et al., 2023; Williamson et al., 2023). In this context, perceived spousal support in pregnancy, intolerance of uncertainty, and psychological well-being were investigated with different dimensions (Baltacı & Metin, 2024; Çankaya & İbrahimoğlu, 2022; Şahin & Beydağ, 2024). However, no study examining all three concepts together was found in the literature.

Aim

This study examined the relationship between perceived spousal support, intolerance of uncertainty, and psychological well-being in high-risk pregnant women. The research results are expected to contribute to the development of interventions that support the well-being of high-risk pregnant women.

Study Questions

What is the level of perceived spousal support, intolerance of uncertainty, and psychological well-being in high-risk pregnant women?

Is there a relationship between perceived spousal support, intolerance of uncertainty, and psychological well-being in high-risk pregnant women?

MATERIAL and METHODS

Study Design

This study was designed as a cross-sectional and correlational.

Study Sample

The universe of the study consisted of high-risk pregnant women who applied to a hospital. High-risk conditions in pregnancy can be due to pre-existing medical conditions or pregnancy-related conditions (Williamson et al., 2023). The World Health Organization's Guidelines for the Management of Complications in Pregnancy and Childbirth (World Health Organization, 2017), the Republic of Türkiye Ministry of Health's Guidelines for the Management of High-Risk Pregnancies (Sağlık Bakanlığı, 2014), and the Guidelines for the Management of Emergency and Obstetric Care (Sağlık Bakanlığı, 2022), specify risky conditions for pregnancy. In these guidelines, heart diseases, asthma, diabetes, epilepsy, autoimmune diseases, hyperemesis gravidarum, hypertensive problems, placental anomalies, antenatal bleeding, coagulopathies, severe anemia, infections such as cervicitis, cystitis, pneumonia and meningitis, multiple pregnancies, premature rupture of membranes, preterm labor, intrauterine growth retardation, etc. are considered as high-risk. In this context, participants consisted of pregnant women with a high-risk pregnancy diagnosed by a specialist (gynecology and obstetrics/perinatology). The G Power program determined that 298 pregnant women should be included in the study sample when the confidence interval was 95%, the test power was 95%, and the correlation coefficient was 0.189 (Çevik, 2017). This study participated 323 high-risk pregnant women.

Inclusion and Exclusion Criteria

The inclusion criteria were determined to be 18 years or older, being able to communicate in Turkish, being diagnosed with high-risk pregnancy, and having the cognitive and perceptual competence to answer the questions. Exclusion criteria from the study were determined as having any communication problems (vision, hearing, speech, language, etc.) and being diagnosed with a psychiatric disease.

Data Collection Tools

Research data were collected using the Introductory Information Form, the Perception of Spousal Support in Pregnancy Scale, the Intolerance of Uncertainty Scale, and the Psychological Well-Being Scale.

Introductory Information Form: This form contains 10 questions designed by researchers to determine the sociodemographic characteristics (age, education level, employment status, etc.) and obstetric characteristics (gravida, pregnancy planning status, etc.) of pregnant women.

Perception of Spousal Support in Pregnancy Scale (PSSPS): The scale was developed by Yurdakul et al. (2020). The five-point Likert-type scale comprises 16 items and three subscales (cognitive support, emotional support, and material support). This scale can be used with both healthy and high-risk pregnant women. Scores obtained from the scale range from 16 to 80. The higher score obtained indicates the higher the perceived spouse support. The Cronbach's alpha coefficient for the total scale is 0.893; the subscales are 0.911, 0.729, and 0.678, respectively (Yurdakul et al., 2020).

Intolerance of Uncertainty Scale (IUS-12): The original form of the scale was created by Carleton et al. (2007) based on the 27-item scale developed by Freeston et al. (1994). The scale was adapted into Turkish by Sarıçam et al. (2014). The five-point Likert-type scale comprises 12 items and two subscales (prospective anxiety and inhibitory anxiety). Scores obtained from the scale range from 12 to 60. A high score indicates a high level of intolerance of uncertainty. The Cronbach's alpha coefficient for the total scale is 0.88; the subscales are 0.84 and 0.77, respectively (Sarıçam et al., 2014).

Psychological Well-Being Scale: The scale developed by Diener et al. (2010) was adapted into Turkish by Telef (2013). The scale comprises eight items and is scored from 1 to 7. Scores obtained from the scale range from 8 to 56. A high score indicates that the person has psychological power. Cronbach's alpha coefficient is 0.87 (Telef, 2013).

Data Collection

Research data was collected between 23.11.2023 and 30.06.2024. Firstly, pregnant women who were followed up with a diagnosis of high-risk pregnancy at the gynaecology, obstetrics, and perinatology clinics and the outpatient clinics were informed about the study. Then, the consent of the pregnant women who volunteered to participate in the study was obtained, after which an explanation was provided on how to complete the data collection forms. The women completed the forms based on self-reporting. It took between 15 and 30 minutes to complete the forms.

Data Analysis

IBM SPSS Statistics 25.0 was used in data analysis. Descriptive data on high-risk pregnant women were reported using measures such as frequency, percentage, mean, standard deviation, minimum, and maximum values. The suitability of the data for a normal distribution was determined based on skewness, kurtosis values (±1). Pearson correlation analysis and linear regression analysis were used in the analysis of the data.

Ethical Approval

Ethics committee approval was obtained from the Non-interventional Clinical Research Ethics Committee of Amasya University (Decision number: 2023/109, Decision date: 07.09.2023). In addition, permission was obtained from the institution where the research was conducted. (Number: 2300132706, Date: 22.11.2023). All pregnant women participating in the study were informed about the study, and their informed consent was obtained. The research adhered to the principles of the Declaration of Helsinki.

Limitations

This study was conducted in a single centre. The research data are based on self-reports of pregnant women. Therefore, the results cannot be generalised to all high-risk pregnant women.

RESULTS

The mean age of the pregnant women was 28.31±4.72 years (range 18–41). Of the women, 62.2% were high school graduates, 52.3% were unemployed, 90.1% had an income equal to their expenses, and 91.0% lived in a nuclear family. Of them, 70.6% were multigravida, 58.8% of pregnancies were unplanned, 64.4% had no history of previous miscarriage or abortion, and 36.8% were at 30–34 weeks of gestation (Table 1).

The distribution of total and subscale mean scores is shown in Table 2. The mean total score of the perception of spousal support in pregnancy scale was 53.24±9.95, the mean total score of the intolerance of uncertainty scale was 41.85±8.72, and the mean total score of the psychological well-being scale was 36.94±6.75. Accordingly, perceived spousal support, psychological well-being, and intolerance of uncertainty levels of pregnant women were above average (Table 2).

Table 1. Descriptive Characteristics of Pregnant Women (n = 323)

Characteristics		n (%)		
Education status	Primary school	36 (11.2)		
	High school	201 (62.2)		
	University	86 (26.6)		
Employment status	Employed	154 (47.7)		
	Unemployed	169 (52.3)		
	Income less than expenses	26 (8.0)		
Income level	Income equal to expenses	291 (90.1)		
	Income more than expenses	6 (1.9)		
Family type	Nuclear family	294 (91.0)		
	Extended family	29 (9.0)		
Gravida	Primigravida	95 (29.4)		
	Multigravida	228 (70.6)		
Pregnancy planning status	Planned	133 (41.2)		
	Unplanned	190 (58.8)		
Miscarriage/abortion history	Yes	115 (35.6)		
	No	208 (64.4)		
Week of pregnancy	12-19 weeks	33 (10.2)		
	20-24 weeks	53 (16.4)		
	25-29 weeks	102 (31.6)		
	30-34 weeks	119 (36.8)		
	35-40 weeks	16 (5.0)		
Chronic discoss status	Yes	16 (5.0)		
Chronic disease status	No	307 (95.0)		

Table 2. Distribution of Scale Total and Subscale Mean Scores

Scales	Mean	Standard Deviation	Minimum	Maximum	
Perception of Spousal Support in Pregnancy Scale	53.24	9.95	16	80	
Cognitive support	20.74	4.13	6	30	
Emotional support	14.62	4.03	5	25	
Material support	17.88	3.52	5	25	
Intolerance of Uncertainty Scale	41.85	8.72	22	60	
Prospective Anxiety	20.98	4.43	7	30	
Inhibitory Anxiety	20.87	4.64	12	30	
Psychological Well-Being Scale	36.94	6.75	8	56	

The correlation between the scale total and subscale score averages is presented in Table 3. According to the analysis results, a negative and weakly significant correlation was found between the total mean score of the perception of spousal support in the pregnancy scale and the total and subscale mean scores of the intolerance of uncertainty scale. Additionally, a positive and low-level significant correlation was found between the total and subscale mean scores of the perception of spousal support in pregnancy scale and the mean score of the psychological well-being scale (p<0.05) (Table 3). There was no correlation between the mean score of intolerance of uncertainty scale and the mean score of psychological well-being scale (p>0.05).

Table 3. Correlation Between Total Scale and Subscale Mean Scores

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		Intolerance of Uncertainty Scale Total	IUS-12 Prospective Anxiety	IUS-12 Inhibitory Anxiety	Psychological Well-Being Scale		
Perception of Spousal Support in	r	-0.133	-0.145	-0.111	0.349		
Pregnancy Scale	р	0.017	0.009	0.047	0.000		
Cognitive support	r	-0.102	-0.107	-0.091	0.337		
	р	0.066	0.056	0.104	0.000		
Emotional support	r	-0.124	-0.161	-0.079	0.265		
	р	0.026	0.004	0.158	0.000		
Material support	r	-0.114	-0.101	-0.117	0.287		
	р	0.041	0.070	0.036	0.000		

IUS-12: Intolerance of Uncertainty Scale, r: Pearson correlation.

Examining the results of the linear regression analysis showed that the perception of spousal support in pregnancy explains 2% of the total variance for intolerance of uncertainty (R = 0.133, R²= 0.018, F = 5.764, p = 0.017) and 12% for psychological well-being (R = 0.349, R² = 0.122, F = 44.489, p = 0.000). The results of the analysis revealed that the perception of spousal support in

pregnancy negatively predicted intolerance of uncertainty (β =-0.133, p=0.017) and positively predicted psychological well-being (β =0.349, p<0.001) (Table 4).

Table 4. Linear Regression Analysis of the Predictions of the Perception of Spousal Support in Pregnancy Scale on Intolerance of Uncertainty and Psychological Well-Being

Dependent variable	Independent variable	В	Std. Error	β	t	р
Intolerance of Uncertainty Scale	Constant	48.040	2.625		18.303	0.000
	PSSPS	-0.116	0.048	-0.133	-2.401	0.017
R = 0.133, R ² = 0.018, F = 5.764, p = 0.017						
Psychological Well-Being Scale	Constant	24.347	1.921		12.676	0.000
	PSSPS	0.237	0.035	0.349	6.670	0.000
R = 0.349, R ² = 0.122, F = 44.489, p = 0.000						

PSSPS: Perception of Spousal Support in Pregnancy Scale, B: Regression coefficient, R: Multiple correlation coefficient, R2: Determination coefficient

DISCUSSION

Changes that affect the health of the mother and fetus in pregnancy can cause problems such as stress, anxiety, and fear. These problems can have a negative impact on the process of adapting to pregnancy and well-being (Keten Edis & Kurtgöz, 2023; Mirzakhani et al., 2023; Williamson et al., 2023). This study investigated the relationship between perceived spousal support and intolerance of uncertainty and psychological well-being in high-risk pregnant women. The study showed that increased perceived spousal support in pregnancy reduces intolerance of uncertainty and positively affects psychological well-being.

This study found that the total and subscale scores of the perception of spousal support in pregnancy scale were above a moderate level. Contrary to our study findings, a study conducted with high-risk pregnant women found that the perception of spousal support was low (Baltacı & Metin, 2024). Another study found that the perception of spousal support in high-risk pregnant women was moderate (Özbek & Beydağ, 2022). Studies conducted with non-risk pregnant women found that they perceived a high level of spousal support (Güleroğlu & Onat, 2023; Kucukkaya & Basgol, 2023; Unal & Senol, 2024; Yüksekal & Yurdakul, 2021). The results of this study support the literature on spousal support in pregnancy. Considering that the perception of spousal support is higher in non-risk pregnant women, it could be argued that high-risk pregnant women expect more support from their spouses. In this study, the mean total and subscale scores of the intolerance of uncertainty scale in high-risk pregnant women were above the average. These results are in line with the literature. Similarly, Degirmenci et al. (2020) found that the mean score of intolerance of uncertainty in pregnant women was similar to that observed in this study. A different study conducted on high-risk pregnant women found that their level of intolerance to uncertainty was lower than that observed in this study (Şahin & Beydağ, 2024). Flink et al. (2023) also found that intolerance of uncertainty was low in pregnant women. Another study showed that pregnant women with threatened miscarriage experienced high levels of intolerance of uncertainty (Cankaya & İbrahimoğlu, 2022). Studies revealed different results. The different results in previous studies may be related to the severity of health problems and the extent of perceived risk. The changes that occur in high-risk pregnant women and the fear of losing their baby cause uncertainty and anxiety (Çankaya & İbrahimoğlu, 2022; Schmuke, 2019). Additionally, the intensity, frequency, or unpredictability of symptoms experienced can lead to increased uncertainty, further compounding the challenges faced by those affected (Schmuke, 2019). Therefore, intolerance to uncertainty should be taken into consideration in high-risk pregnant women.

In this study, the psychological well-being score was found to be above average. Çankaya and İbrahimoğlu (2022) found a level of psychological well-being similar to that in our study. The same study also found that the psychological well-being of pregnant women with threatened miscarriage was lower than those without threatened miscarriage (Çankaya & İbrahimoğlu, 2022). In a different study conducted with pregnant women, the level of psychological well-being was found to be higher than in our study (Erdemoğlu et al., 2022). Another study determined that the mean score of psychological well-being was high in pregnant women (Yuksel & Bayrakci, 2019). High-risk pregnancy is a life crisis for many pregnant women and affects their psychological well-being (Mirzakhani et al., 2020). Women experiencing high-risk pregnancies experience emotions such as anger, stress, anxiety, fear, disappointment, and uncertainty (Çankaya & İbrahimoğlu, 2022; Isaacs & Andipatin, 2020; Keten Edis & Kurtgöz, 2023). In addition, adaptation to pregnancy is higher in low-risk pregnant women than in high-risk pregnant women (Akça et al., 2024). Physical, emotional, and psychosocial problems and poor adaptation in high-risk pregnant women can cause a decrease in psychological well-being. In this study, although the psychological well-being level of pregnant women was above average, it was lower compared to the studies conducted with healthy pregnant women. This finding emphasizes the importance of interventions that support psychological well-being in high-risk pregnant women.

In this study, it was determined that intolerance of uncertainty decreased as perceived spousal support increased in pregnancy. The results of the regression analysis showed that the perception of spousal support in pregnancy negatively predicted intolerance of uncertainty. A study conducted with infertile women found a negative correlation between spousal support and uncertainty (Lee et al., 2020). Spousal support in pregnancy positively affects pregnancy, delivery, and the postpartum period (Arisukwu et al., 2021). As perceived spousal support increases, anxiety, depression, and stress experienced in pregnancy decrease, and the

coping skills of pregnant women increase (Baltacı & Metin, 2024; Çallı & Dikmen, 2023; Küçük & Cesur, 2023). The findings of this study suggest that increased perceived spousal support can have a positive effect on decreased intolerance of uncertainty by reducing stress and anxiety. This result highlights the importance of spousal support on the well-being of high-risk pregnant women.

This study found a positive correlation between perceived spousal support and psychological well-being. In addition, the results of the regression analysis showed that perceived spouse support in pregnancy positively affected psychological well-being. A study of married women also found that spousal support was a significant predictor of psychological well-being (Aridağ et al., 2019). Another study reported that spousal support positively affects the psychological well-being of pregnant women (Ilska & Przybyła-Basista, 2017). A different study determined that perceived spousal support positively predicted psychological resilience in married individuals (Acibal et al., 2023). Different studies have also shown that stress decreases as spousal support increases in pregnancy (Baltacı & Metin, 2024; Moon & Kim, 2023). Spousal support in pregnancy makes women happy and increases their well-being, which in turn positively affects the overall mental health of both the mother and the baby (Arisukwu et al., 2021). The findings of this study are consistent with the literature and demonstrate that spousal support in pregnancy is an essential factor for women's psychological well-being. In other words, the results of the study reveal that increased spousal support positively affects the psychological well-being of high-risk pregnant women.

Another finding of this study was that there was no correlation between intolerance of uncertainty and psychological well-being. Contrary to our findings, some studies found a negative correlation between intolerance of uncertainty and psychological well-being (Çankaya & İbrahimoğlu, 2022; Çevik & Yağmur, 2018). Contrary to the literature, the results of this study revealed that intolerance of uncertainty was not associated with psychological well-being. However, considering the results of different studies, intolerance of uncertainty can be viewed as a risk factor for psychological well-being. However, further research is needed to confirm these results. Future research should explore the correlation between intolerance of uncertainty and psychological well-being in high-risk pregnant women.

CONCLUSION

This study examined the relationship between perceived spousal support, intolerance of uncertainty, and psychological well-being in high-risk pregnant women. The results of the study showed that perceived spousal support negatively predicted intolerance of uncertainty and positively predicted psychological well-being. The results obtained suggest that increasing spousal support among high-risk pregnant women can reduce intolerance to uncertainty and positively affect pregnancy outcomes by supporting the psychological well-being of pregnant women. In this context, we recommend questioning spousal support in high-risk pregnant women, inviting their spouses to prenatal follow-ups, and strengthening the role of the spouse in the care of high-risk pregnant women. In addition, further research can be conducted to determine the relationship between perceived spouse support and intolerance of uncertainty and psychological well-being in high-risk pregnant women.

Ethics Committee Approval: Ethics committee approval was obtained from the Non-Interventional Clinical Research Ethics Committee of Amasya University (Decision date: 07.09.2023, Decision number: 2023/109). Additionally, institutional permission was obtained (Date: 22.11.2023, Number: 2300132706).

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Exhibitor Consent: Informed consent was obtained from the participants for this study.

Author contributions
Study design: EKE
Data collection: SDY
Literature search: EKE
Drafting manuscript: EKE

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