Acta Medica Ruha
International Journal of Medicine and Health Sciences
E-ISSN: 2980-1184

ORIGINAL ARTICLE
Volume:3 Issue:2 Year:2025
https://doi.org/10.5281/zenodo.15665165

Comparison of Stress Levels of High-Risk and Low-Risk Pregnant Women

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ABSTRACT

Introduction: Pregnancies can be classified as "low-risk" and "high-risk" in terms of risk situations during pregnancy.
Objective: The purpose of this study is to determine the stress levels of high-risk and low-risk pregnant women.
Method: This experimental study included 300 pregnant women who applied to the Department of Obstetrics and Gynecology, Ankara University Faculty of Medicine between September and November 2022.
Results: When we evaluated the participants, who were divided into 2 groups according to their stress scores, the most stressed group was in group 1 according to the scale result. According to the scale result, continuous variables are generally similar between the groups. When the variables between these groups are taken into account, it is seen that only the weeks of pregnancy are different. The reason why this difference is significant is that group 1 is in an earlier week of pregnancy than group 2. According to this result, we can say that there is more stress in the earlier weeks of pregnancy.
Conclusion: As a result of our study, especially in the early weeks of pregnancy, high-risk pregnant women experience more stress due to uncertainty about their pregnancy. Health professionals providing perinatal care to women should plan family support and psychological therapy programs, especially in the early weeks, for pregnant women with high-risk pregnancies.

Keyswords: High Risk, Low Risk, Pregnancy, Stress.

INTRODUCTION

Women have undertaken many roles and responsibilities throughout their lives since the beginning of human life (1). Pregnancy, one of the most important roles and responsibilities for women, is a process that is very important for the continuation of the human race and family integrity, as well as the continuity of social life (2-4). Pregnancy, which causes physical and emotional changes, is a physiological life experience that leaves psychological marks for women. However, this physiological experience is likely to cause stress in expectant mothers due to the possibility of threatening the health of the woman and the fetus due to some risks that may develop due to various factors (5-9). The risk situation during pregnancy is the possibility of an increase in complications that are not expected to develop under normal conditions, but are already present or may develop during the pregnancy process (10). In terms of risk situations during pregnancy, they can be classified as "low-risk" and "high-risk" pregnancies (11,12). It was reported in the 2018 TNSA data that one in every three pregnancies in our country is seen as risky. Women who are reported or seen to have a risky pregnancy or before may experience increasing levels of stress and fear in the period leading up to birth (13). According to some studies, the frequency of stress in pregnancies considered risky is between 5-51% (10). Among health professionals, nurses, who are in closer contact with pregnant women, can plan protective interventions against psychological problems during pregnancy, identify factors that may cause stress early on, and provide opportunities for precautions and interventions, thus achieving positive results (14). No study has been found in our country to examine the factors that determine the stress levels of risky pregnancies. It is believed that this study will contribute to the literature by determining the stress levels of low-risk and high-risk pregnant women and will be a resource for future research in this area.

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Received: 26.05.2025, Accepted: 09.06.2025, Published Online: 20.06.2025
Cited: Ataman G, et al. Comparison of Stress Levels of High-Risk and Low-Risk Pregnant Women. Acta Medica Ruha. 2025;3(2):93-98. https://doi.org/10.5281/zenodo.15665165

METHODS

Study Design And Ethical Approval

The research was approved by the Ankara University Rectorate Ethics Committee with decision number 185 on 25.10.2021.The ethical rules of the Declaration of Helsinki (2013) were taken into consideration at all stages of this study.

Study Procedure

In the study, this study, which was planned as an experimental study, was conducted on 300 pregnant women who applied to the Department of Obstetrics and Gynecology, Ankara University Faculty of Medicine between September and November 2022. All pregnant women who were 16 weeks or more pregnant were included in the study. Pregnant women with normal pregnancies formed the low-risk group. Pregnant women who had a complication during pregnancy or before formed the high-risk group.

Data Collection: After the researcher explained the purpose and content of the study to the pregnant women who met the research criteria and agreed to participate in the study, and had them read and sign the "Informed Consent Form", the "Socio-Demographic Characteristics Form", "Obstetric Characteristics Form" and the "Pregnancy Stress Assessment Scale" survey questions were collected face to face.

Socio-Demographic Characteristics Form: The Socio-Demographic Characteristics Form was prepared by researchers in accordance with literature information and expert opinions, and is a form consisting of a total of 8 questions including women's introductory characteristics such as age, gender, and occupation.

Obstetric Characteristics Form: The Obstetric Characteristics Form was prepared by researchers in accordance with literature information and expert opinions, and is a form consisting of a total of 10 questions including characteristics of the pregnancy. Pregnancy Stress Assessment Scale: The scale was developed by Chen in 2015 and was adapted to Turkish by Aksoy and colleagues in 2018 in our country, and its validity and reliability were performed. The sum of all item scores of the scale consisting of 36 items in a 5-point Likert type determines the stress score in the prenatal process (15). The minimum level score obtained from the scale was calculated as 0, and the maximum level score was calculated as 144. The main reason for dividing into 2 groups according to the stress scale level was that 75 pregnant women in the first group were in the first 2 trimesters, especially the first trimester, and the remaining 225 pregnant women were in the last trimester, and therefore, their answers to the scale questions according to the week they were in were due to this. While the scale result for the pregnant women in the first group was at the level of 48 points due to the answers given by these pregnant women according to the week they were in, it remained at the level of 13 points due to the answers given by the pregnant women in the second group according to the week they were in. The fact that the score obtained was at a high level in the first group is an indication that the stress perception depending on the week of pregnancy is at different levels.

Statistical Analysis

Data were evaluated in a computer environment with SPSS package program version 22.0. Descriptive data will be shown with numbers, percentages and averages. In the evaluation of data, continuous variables were evaluated with student t test, categorical variables were evaluated with chi-square test and Pearson correlation analysis was used. The significance level and confidence interval of the findings were accepted as 95% ($p<0.05$).

Study Limitations

During data collection, patients included in the sample were not asked for information about their illness (diagnosis, stage, etc.) for ethical reasons. Information about their illness was obtained from patient files.

RESULTS

The 300 participants whose scale scores were calculated were divided into groups as the most stressed group 1 according to the scores they received from the scale. When the scale results were examined, the 1st group was calculated as 48.01±15.13, and the 2nd group as 13.09±3.55 (Table 1).

Table 1. Distribution of Pregnant Women According to Age, Marriage Duration, Week of Pregnancy, Number of Pregnancies, Live Birth, Still Birth and Scale Result

Variables	1. Group	2. Group	P
	Mean±SD	Mean±SD	
Scale Result	48.01±15.13	13.09±3.55	P<0.01
Age	28.29±5.32	28.83±4.45	0.763
Duration of Marriage	5.08±3.75	6.28±3.83	0.146
Pregnancy Week	24.83±5.90	27.49±5.92	0.012
Number of Pregnancies	2.05±1.24	2.24±0.91	0.063
Live Birth	0.85±0.96	1.05±0.95	0.062
Still Birth	0.23±0.55	0.21±0.52	0.752

When the distribution of the participants in the study according to their sociodemographic characteristics was examined; 9.3% were primary school graduates, 16.3% were secondary school graduates, 36.3% were high school graduates and 37.7% were university graduates, 30% were employed, 70% were unemployed, 98% had social security, 2% did not have social security, 99% were married, 1% were single, 90.3% did not smoke/drink alcohol, and 9.3% only smoked (Table 2).

Table 2. Distribution of Pregnant Women According to Their Socio-Demographic Characteristics

Demographic Characteristics	1. Group n (%)	2. Group n (%)	Total n (%)	P
Education Status				
Illiterate	0 (0)	0 (0)	0 (0)	0.077
Literate	0 (0)	1 (0.5)	1 (0.3)	
Primary School	4 (5.3)	24 (10.6)	28 (9.3)	
Secondary School	12 (16)	37 (16.5)	49 (16.4)	
High School	31 (41.3)	78 (34.7)	109 (36.3)	
University	28 (37.4)	85 (37.7)	113 (37.7)	
Occupation				
Employed	23 (30.7)	67 (29.8)	90 (30)	0.662
Unemployed	52 (69.3)	158 (70.2)	210 (70)	
Social Security				
SSK	63 (84)	183 (81.3)	246 (82)	0.388
Retirement Fund	7 (9.3)	32 (14.3)	39 (13)	
Bagkur	4 (5.4)	9 (4)	13 (4.3)	
None	1 (1.3)	1 (0.4)	2 (0.7)	
Marital Status				
Married	73 (97.3)	224 (99.6)	297 (99)	0.539
Single	2 (2.6)	1 (0.4)	3 (1)	
Smoking/Alcohol Use				
Non-Using	65 (86.7)	206(91.5)	271 (90.3)	0.509
Smoking	9 (12)	19(8.5)	28 (9.4)	
Alcohol	0 (0)	0 (0)	0 (0)	
Smoking and Alcohol	1 (1.3)	0 (0)	1 (0.3)	

When the distribution of the pregnant women participating in the study according to their obstetric characteristics was examined; It was observed that 95.3% wanted pregnancy, 4.7% did not want pregnancy, 85.3% did not receive pregnancy education, 4.7% did not receive pregnancy education, 14.7% received pregnancy information from health personnel, 84.3% from the internet, 1% from books, magazines, and newspapers, 99.3% had regular pregnancy check-ups, 0.7% did not have regular health check-ups, 18.3% were not stressed about pregnancy, 70.7% were a little stressed, 11% were very stressed, 67.3% felt ready for birth, and 32.7% did not feel ready for birth (Table 3). When we evaluated the participants, who we divided into 2 quadrants according to their stress scores, the most stressed group was in the 1st group according to the scale results. According to the scale results, continuous variables were generally similar between the groups. It was seen that only the weeks of pregnancy were

different. According to this result, we can say that people are more stressed in the earlier weeks. When categorical variables are evaluated, it was found that there were significant differences in terms of receiving education about pregnancy, from whom the education was received, stress status about pregnancy and feeling ready for birth.

Table 3. Distribution of Pregnant Women According to Obstetric Characteristics

Obstetric Characteristics	1.Group n (%)	2.Group n (%)	Total n (%)	P
Wanting Pregnancy				
Yes	72 (96)	214 (97.3)	286 (95.3)	0.683
No	3 (4)	11 (2.7)	14 (4.7)	
Pregnancy Education Receiving Status				
Yes	57 (76)	199 (86.7)	256 (85.3)	0.027
No	18 (24)	26 (13.3)	44 (14.7)	
From Whom Did You Get Pregnancy Education?				
Health Personnel				
Internet	17 (22.7)	27 (12)	44 (14.7)	0.007
Books, Magazines, Newspapers	55 (73.3)	198 (88)	253 (84.3)	
	3 (4)	0 (0)	3 (1)	
Regularity of Pregnancy-Related Check-ups				
Yes	73 (97.3)	225 (100)	298 (99.3)	0.110
No	2 (2.7)	0 (0)	2 (0.7)	
Pregnancy Related Stress				
Non-stressful	11 (14.7)	44 (14.7)	55 (18.3)	<0.01
Somewhat stressful	49 (65.3)	163 (80)	212 (70.7)	
Very stressful	15 (20)	18 (5.3)	33 (11)	
Feeling Ready for Birth				
Ready	51 (68)	151 (57.3)	202 (67.3)	0.026
Not Ready	24 (32)	74 (42.7)	98 (32.7	

DISCUSSION

Pregnancy is seen as a natural crisis in women's lives. Physiological and psychosocial changes experienced during pregnancy can affect women's social relationships, adaptation to pregnancy, pregnancy and body perception, and self-esteem (16,17). The acceptance of pregnancy by the mother, sharing it with the environment, family reactions, gender expectations, and tests showing the baby's health status (such as double and quadruple screening) in the early weeks of pregnancy in the first trimester affect the mother's psychology and cause anxiety disorder. In the first trimester, when physiological and hormonal changes occur during pregnancy are most evident, nausea, dermatological changes on the skin, the presence of edema, and fear of losing the pregnancy also increase stress and related anxiety disorders. As the weeks progress, existing maternal changes are accepted or the anomalies seen in the baby in the early weeks are diagnosed or regressed, reducing the stress of the pregnant woman, which minimizes the anxiety disorder compared to the first trimester. Due to all these factors, women perceive pregnancy as a source of joy, self-actualization and happiness, but they can also see it as a period in which negative psychological states such as stress, anxiety and anxious waiting can be experienced. Emotional problems such as uncontrolled anxiety, worry and stress during pregnancy can negatively affect maternal and newborn health during labor and postpartum period as well as during pregnancy (18-20). In a study conducted to examine the anxiety levels of pregnant women in the prenatal and postnatal periods, it was reported that the anxiety level of pregnant women was “high” in the prenatal period (21). At the same time, in another study conducted, prenatal distress can also be a risk factor for postpartum depression (22). According to the results of the scale showing the pregnancy stress level in our study, the most stressed group was in the 1st group. The continuous variables in the scale results were generally similar between the groups. It was observed that only the gestational weeks were different between these groups. The average gestational week in the pregnant women in the 1st group was in earlier weeks compared to the average gestational week in the pregnant women in the 2nd group. Therefore, considering our study, the stress load of pregnant women, especially in the early weeks of pregnancy, is higher than in the later weeks, considering the gestational week.

CONCLUSION

As a result of our study, especially risky pregnant women in the early weeks of pregnancy experience more stress due to uncertainty about the pregnancy process. It is important to recognize negative psychosocial reactions as well as physiological reactions during pregnancy and to develop preventive health services. All health professionals who follow up pregnant women should be aware of the stress that may develop during pregnancy due to the psychological and physiological health conditions of pregnant women, and they should contribute to the improvement of health outcomes of mothers and babies by using techniques to develop identification approaches to determine risk factors that pave the way for stress in pregnant women who detect stress. Again, stress coping strategies should be determined in pregnant women with stress symptoms and findings, and training programs should be planned to eliminate stress or anxiety experienced by pregnant women during pregnancy. Health professionals who provide perinatal care to women should recommend family support and psychological therapy, especially in the early weeks, to pregnant women with risky pregnancies.

DESCRIPTIONS

No financial support.

No conflict of interest.

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