DOI: 10.55646/jaren.galenos.2026.87533
J Acad Res Nurs 2026;12(2):107-116

Pregnant Women's Attitudes Towards Sexuality and Risk Perceptions

Gebelerin Cinselliğe Karşı Tutum ve Risk Algıları

Ayşegül Keskin Güler[1], Sakine Yılmaz[2]

[1]University of Health Sciences Türkiye, Atatürk Sanatorium Training and Research Hospital, Department of Education Coordination, Ankara, Türkiye
[2]Çankırı Karatekin University Faculty of Health Sciences, Department of Midwifery, Çankırı, Türkiye

Cite this article as: Keskin Güler A, Yılmaz S. Pregnant women's attitudes towards sexuality and risk perceptions. J Acad Res Nurs. 2026;12(2):107-116

ABSTRACT

Objective: This descriptive cross-sectional study aimed to assess pregnant women's attitudes toward sexuality and their perceptions of sexual health-related risks.

Methods: The study sample consisted of 255 pregnant women who presented to the obstetrics and gynecology outpatient clinic of a public hospital. Data were obtained through the administration of "the Descriptive Information Form", "the Attitudes Toward Sexuality in Pregnancy Scale", and "the Risk Perception in Pregnancy Scale". Statistical analyses included descriptive statistics (frequency, percentage, and mean), the Mann-Whitney U test, the Kruskal-Wallis H test, the Shapiro-Wilk test, and Spearman's correlation analysis.

Results: The results demonstrated that participants had a moderate level of attitudes toward sexuality during pregnancy, as indicated by a mean total scale score of 116.07±21.26. The mean total score obtained from the Risk Perception in Pregnancy Scale was 34.02±22.05, corresponding to a moderate level. In addition, pregnant women who did not perceive sexual intercourse during pregnancy as a risky condition had higher levels of risk perception, with this difference reaching statistical significance ($p<0.05$). No statistically significant relationship was observed between pregnant women's attitudes toward sexuality and their risk perceptions ($p>0.05$).

Conclusion: It is recommended that healthcare professionals provide structured counseling and educational programs aimed at improving pregnant women's risk perceptions and attitudes toward sexuality during pregnancy.

Keywords: Sexuality, pregnancy, risk perception, sexual attitude, nursing

ÖZ

Amaç: Araştırma gebelerin cinselliğe karşı tutum ve risk algılarını belirlemek amacıyla tanımlayıcı kesitsel olarak yapıldı.

Yöntem: Araştırmanın örneklemini bir devlet hastanesinin kadın doğum polikliniğine başvuran 255 gebe kadın oluşturdu. Araştırma verileri, Tanıtıcı Bilgi Formu, Gebelikte Cinselliğe Karşı Tutum Ölçeği ve Gebelikte Risk Algısı Ölçeği kullanılarak toplandı. Verilerin analizinde frekans analizi (sayı, yüzde, ortalama), Mann-Whitney U testi, Kruskall-Wallis H testi, Shapiro-Wilk ve Spearman korelasyon analizi kullanıldı.

Bulgular: Bu çalışmada gebelerin Gebelikte Cinselliğe Karşı Tutum ölçeği toplam puan ortalamalarının (116,07±21,26) orta düzeyde olduğu saptandı ($p<0,05$). Gebelikte Risk Algısı Ölçeği toplam puan ortalamalarının (34,02±22,05) orta düzeyde olduğu ve gebelikte cinsel birleşmeyi riskli bir durum olarak algılamayan gebelerin risk algılarının yüksek olduğu belirlendi ($p<0,05$). Araştırmada gebelerin cinselliğe karşı tutum ve risk algıları arasında anlamlı düzeyde bir ilişki saptanmadı ($p>0,05$).

Sonuç: Sağlık profesyonellerinin gebelikte cinsellik açısından risk algısı ve tutumuna yönelik danışmanlık faaliyetleri ve eğitim programları düzenlenmeleri önerilebilir.

Anahtar kelimeler: Cinsellik, gebelik, risk algısı, cinsel tutum, hemşirelik

ORCID IDs: AKG. 0000-0002-0177-9154; SY. 0000-0002-7406-1389

Corresponding Author: Sakine Yılmaz,
E-mail: sakinee_yilmaz@hotmail.com

Received Date: 19.04.2026 **Accepted Date:** 27.07.2026
Publication Date: 26.08.2026

Copyright© 2026 University of Health Sciences Türkiye, Gaziosmanpaşa Training and Research Hospital. Published by Galenos Publishing House on behalf of University of Health Sciences Türkiye, Gaziosmanpaşa Training and Research Hospital. This is an open access article under the Creative Commons AttributionNonCommercial 4.0 International (CC BY-NC 4.0) License.

Copyright© 2026 Sağlık Bilimleri Üniversitesi Gaziosmanpaşa Eğitim ve Araştırma Hastanesi. Sağlık Bilimleri Üniversitesi, Gaziosmanpaşa Eğitim ve Araştırma Hastanesi adına Galenos Yayınevi tarafından yayımlanmıştır. Creative Commons Atıf-GayriTicari 4.0 Uluslararası (CC BY-NC 4.0) Uluslararası Lisansı ile lisanslanmış, açık erişimli bir makaledir.

INTRODUCTION

Sexuality is an individual as well as a social construct, usually associated with one or more partners experienced and defined by the individual. A range of physiological processes, such as hormonal changes, menstruation, pregnancy, childbirth, breastfeeding, and menopause, may influence it [1]. Pregnancy involves emotional and physiologic changes affecting the woman, her partner, and their relationships [2,3]. Therefore, sexuality in pregnancy is very important.

In the absence of pregnancy-related complications, sexual activity is considered a natural process that may contribute positively to the sexual and psychological well-being of both partners. Healthy sexual practices during pregnancy can support the quality of the couple's relationship and may have positive effects on the pregnant woman's self-esteem and psychological well-being. A variety of factors can shape sexual attitudes and behaviors during pregnancy, including maternal age, previous adverse pregnancy experiences, concerns regarding motherhood, culturally embedded myths about pregnancy, changes in body image associated with physiological alterations, perceptions that sexual activity is incompatible with the sacred role of motherhood, and the misconception that sexual intercourse may pose risks to fetal and maternal health [4,5].

Pregnancy represents a multifaceted period marked by substantial physiological, psychological, and social transformations. These changes may influence pregnant women's sexual lives and subsequently shape their attitudes toward pregnancy and sexuality during this period. Anxiety, personal beliefs and values concerning sexuality, as well as attitudes toward the acceptability of sexual activity during pregnancy, have been reported to be associated with sexual functioning. Furthermore, pregnancy-related physical discomfort, restricted mobility resulting from bodily changes, concerns about potential harm to the fetus, and cultural factors may contribute to alterations in sexual life during pregnancy. Dyadic adjustment is a factor that influences pregnancy both positively and negatively. Pregnant individuals who experience a supportive and harmonious relationship with their partners may adapt to the pregnancy process more effectively. In contrast, insufficient partner harmony and support may contribute to difficulties during pregnancy. Greater relationship satisfaction and mutual adjustment, which are considered important factors influencing perceptions of motherhood and dyadic adaptation during pregnancy, may foster more positive attitudes toward sexuality. The perception of motherhood begins to develop during pregnancy. At the same time, pregnancy is accompanied by substantial changes in women's physical appearance and body image. The process of preparing for parenthood may also influence the quality of the couple's dyadic adjustment. Collectively, the physical, psychological, and relational experiences associated with pregnancy can shape attitudes toward sexuality. Furthermore, perceiving sexual activity during pregnancy as taboo and having limited access to sexual counseling may adversely affect women's attitudes toward sexuality [6,7]. Risk perception during pregnancy lies based on the negative impact on women's sexual lives. Many studies suggest that many couples do not find sexual intercourse safe during pregnancy and are afraid of sexual intercourse [8,9]. Risk perception is delineated as the subjective assessment individuals make regarding the likelihood and origin of a given risk. This cognitive process holds pivotal importance in how individuals assess and respond to information pertaining to their health status. Central to the concept of risk perception is the recognition that risk is essentially a cognitive construct shaped by one's perceptions, past experiences, and anticipations [10,11]. Risk perception in pregnancy is defined as the likelihood of unexpected but foreseeable conditions in routine pregnancy follow-up or conditions involving life risk in the antenatal period [12]. Changes occurring during pregnancy pose a potential risk for every pregnant woman and her developing baby. These risks may occur in different ways in every pregnancy period. When the entire pregnancy process is evaluated worldwide, a risky situation that negatively affects maternal/fetal health is encountered in 5-20% [13]. In Türkiye, 35.2% of pregnancies are in the risk category [14]. The high perception of risk prepares the ground for people to stay away from the behaviors they will exhibit in the relevant subject [15].

Risk perception is an emotional process that results in emotions, attitudes, and behavioral parameters. High-risk perception towards pregnancy makes it difficult for women to adapt to pregnancy and negatively affects many processes, such as sexuality during pregnancy [10-12]. Negative effects on sexuality during pregnancy negatively affect women's physical and psychological health and change their quality of life [8,9]. Determining the levels of risk perception of pregnant women towards their babies and themselves will contribute to the determination of the training and counseling services to be provided to health professionals and pregnant women, to a smooth process for maternal and infant health, and thus to a positive effect on the sexual attitudes of pregnant women. Considering these findings collectively, this study aimed to examine the relationship between risk perception during pregnancy and attitudes toward sexuality.

Research Questions

The study sought to address the following research questions:

1. What is the level of women's attitudes toward sexuality during pregnancy?

2. What is the level of women's risk perceptions during pregnancy?

3. Do women's attitudes toward sexuality and risk perceptions during pregnancy vary significantly according to their sociodemographic characteristics?

4. Is there a significant association between women's attitudes toward sexuality and their risk perceptions during pregnancy?

MATERIAL AND METHOD

Study Design and Participants

This study employed a descriptive cross-sectional design and included 255 pregnant women who attended the obstetrics

and gynecology outpatient clinic of a state hospital. The target population comprised 1.200 pregnant women who visited the same outpatient clinic in 2020. The study sample consisted of pregnant women aged 18 years or older who had no communication difficulties or psychiatric disorders and voluntarily agreed to participate in the study between September 13, 2021, and October 31, 2022. Using research data obtained with the post-hoc G*Power program, the sample size was determined to be 255 based on 95% confidence and 95% test power.

Measurements

Data collection was conducted using "the Descriptive Information Form" developed by the researchers following a comprehensive review of the relevant literature, "the Risk Perception Scale in Pregnancy", and "the Attitudes Toward Sexuality in Pregnancy Scale (ATSPS)".

Descriptive Information Form: The form consists of a total of 27 items, including sociodemographic (age, education, etc.), obstetric (number of pregnancies, number of children, mode of conception, etc.), and sexual characteristics (satisfaction with the marital relationship, sexual life before pregnancy, etc.) of the participants [16-18].

ATSPS: The scale was developed by Sezer and Şentürk Erenel [16] in 2018 to assess the attitudes of pregnant women and men whose partners are pregnant toward sexuality. The ATSPS consists of 34 items and three subscales. In the ATSPS, negative items (3-4-7-8-9-10-12-13-15-16-17-18-19-22-25-26-27-29-30) are coded in reverse.

ATSPS yields a total score ranging from 34 to 170. Higher scores on the ATSPS indicate more positive attitudes toward sexuality during pregnancy. The Cronbach's alpha coefficients were 0.85 for the "Anxiety Toward Sexual Intercourse During Pregnancy" subscale, 0.86 for the "Beliefs and Values Toward Sexuality During Pregnancy" subscale, and 0.81 for the "Approval of Sexuality During Pregnancy" subscale, while the coefficient for the overall scale was 0.90 [16]. In the present study, Cronbach's alpha coefficients were 0.86 for the "Anxiety Toward Sexual Intercourse During Pregnancy" subscale, 0.91 for the "Beliefs and Values Toward Sexuality During Pregnancy" subscale, and 0.78 for the "Approval of Sexuality During Pregnancy" subscale, with a coefficient of 0.92 for the overall scale.

Risk Perception in Pregnancy Scale: The scale was originally developed by Heaman and Gupton [19] in 2009, and its validity and reliability in Turkish were subsequently established by Evcili and Dağlar [12] in 2019. This visual analog scale consists of nine items grouped into two factors. The first factor, "pregnant women's risk perception toward the baby" includes five items (items 2, 6, 7, 8, and 9), whereas the second factor, "pregnant women's risk perception toward themselves" comprises four items (items 1, 3, 4, and 5). Each item is accompanied by a 0-100 mm linear visual analog scale anchored by the statements "no risk at all" and "extremely high risk". The overall scale score is calculated by summing the scores obtained from the nine items and dividing the total by nine. The scale does not have an established cut-off value; therefore, higher scores indicate greater perceptions of risk concerning the pregnant woman and her baby [12]. The internal consistency of the scale, as assessed by Cronbach's alpha, was reported as 0.87 in the original study [19], 0.84 in the Turkish adaptation study [12], and 0.91 in the current study.

Data Collection

Face-to-face interviews were conducted with eligible pregnant women attending the obstetrics and gynecology outpatient clinic. The duration of each interview was approximately 15-20 minutes.

Ethical Considerations

The study received ethical clearance from the Çankırı Karatekin University Ethics Committee (approval no: 20, date: 03.06.2021) and institutional approval from the relevant institution (09.08.2021/E-53449070-779-88). Before enrollment, the pregnant women were informed about the study's purpose and procedures. Written and verbal informed consent was obtained from all participants who agreed to take part in the study. The research was conducted in accordance with the principles of the Declaration of Helsinki.

Statistical Analysis

The SPSS (Statistical Package for the Social Sciences) 25.0 program was used for statistical data analysis in this study. Shapiro-Wilk analysis was performed to evaluate the normal distribution of the data. In this context, the mean and frequency values of the data were calculated. Mann-Whitney U analysis and Krustal-Wallis H analysis were applied. Correlation was performed to evaluate the relationship between the scales. Mann-Whitney U analysis was used to compare scale scores according to variables with two subcategories, while Kruskal-Wallis H analysis was used to compare variables with three or more subcategories. Spearman's correlation analysis was used in the relationship between scale scores. The significance level was accepted as $p<0.05$.

RESULTS

Among the pregnant women, 31.8% were in the 23-27 age group, 47.1% were university graduates, and 67.1% were employed. It was found that 56.5% of the pregnant women had income equal to expenses, 48.6% of their husbands were university graduates, and 96.9% were employed. It was determined that most pregnant women (87.8%) lived in the city, 82% lived with their spouse and child, and 98% had their own bedroom. It was determined that 47.5% of the pregnant women were in the second trimester, 46.7% had their first pregnancy, approximately half had no living children, 82.4% had planned pregnancies, and 91.8% had a positive pregnancy evaluation (Table 1).

The findings indicated that 51.4% of the pregnant women had received information about sexual life during pregnancy, with 58.8% reporting midwives or nurses as their primary source of information. Additionally, 52.9% of the participants demonstrated a moderate level of knowledge regarding sexuality during pregnancy. A perceived risk associated with restricting sexual

Table 1. Distribution of Some Sociodemographic Information on Pregnant Women (n=255)		
Selected sociodemographic characteristics of pregnant women	**n**	**%**
Age		
18-22	29	11.4
23-27	81	31.8
28-31	69	27.1
32-37	52	20.4
37+	24	9.3
Education status		
Literate	6	2.4
Primary education	42	16.5
High school	78	30.6
University	120	47.1
Postgraduate	9	3.4
Employment status		
Yes	171	67.1
No	84	32.9
Income level		
Income is lower than household expenditures	69	27.1
Income is equivalent to household expenditures	144	56.5
Income exceeds household expenditures	42	16.5
Spouse's education status		
Literate	7	2.7
Primary education	30	11.8
High school	82	32.2
University	124	48.6
Postgraduate	12	4.7
Spouse's employment status		
Yes	247	96.9
No	8	3.1
Place of residence		
City (province/district center)	224	87.8
Countryside (town/village)	31	12.2
Individuals living in the same household other than spouse and children		
Yes	46	18.0
No	209	82.0
Having their own bedroom (husband and wife)		
Yes	250	98.0
No	5	2.0
Gestational week		
1st trimester	38	14.9
2nd trimester	121	47.5
3rd trimester	96	37.6
Number of pregnancy		
First pregnancy	119	46.7
Second pregnancy	94	36.9
Three and above	42	16.5
Number of living children		
No	125	49.0
One child	88	34.5
Two children	31	12.2
Three children and above	11	4.3
Planned pregnancy		
Yes	210	82.4
No	45	17.6
Emotional state regarding the current pregnancy		
Positive	234	91.8
Negative	21	8.2

intercourse during pregnancy was reported by 86.3% of the pregnant women. Among those who reported restrictions on sexual intercourse, 44.0% identified the risk of miscarriage as the reason for the restriction. Physicians were reported as the source of restriction by 15.7% of the participants, and among these women, 52.9% stated that the restriction was due to the risk of miscarriage (Table 2).

The findings showed that 67.8% of the pregnant women were satisfied with their marital relationship, while 69.0% reported satisfaction with their sexual relationship with their spouses before pregnancy. During the current pregnancy, 63.5% indicated that they were satisfied with their sexual life with their spouses. Furthermore, 54.1% reported no change in sexual life satisfaction compared with the pre-pregnancy period. Sexual intercourse during pregnancy was reported by 67.8% of the participants, whereas 30.1% indicated that they abstained from sexual intercourse due to a physician's recommendation or restriction (Table 2).

The mean scores of pregnant women were 31.55±6.90 for anxiety regarding sexual intercourse during pregnancy, 37.90±8.63 for beliefs and values concerning sexuality, and 46.62±8.86 for approval of sexuality during pregnancy. The mean total attitude score toward sexuality during pregnancy was 116.07±21.26, indicating a level above moderate. Regarding risk perception during pregnancy, the mean scores were 33.67±24.33 for perceived risk to the fetus, 34.44±23.64 for perceived risk to themselves, and 34.02±22.05 for overall risk perception (Table 3).

Pregnant women aged 18-22, 23-27, and 28-32 years had significantly higher scores for beliefs and values regarding sexuality during pregnancy compared with those aged 37 years and older ($p<0.05$). Women in the first trimester demonstrated significantly

Table 2. Distribution of Pregnant Women's Knowledge About Sexuality (n=255)		
Knowledge on sexuality	**n**	**%**
Knowledge about sexual life during pregnancy		
No	124	48.6
Yes	131	51.4
Person/place where information on sexual life during pregnancy was obtained		
Doctor	74	56.5
Midwife-nurse	77	58.8
Prenatal courses	7	5.3
Internet	55	42.0
Friend	26	19.8
Books	28	21.4
Family elders	14	10.6
Knowledge of sexual life during pregnancy		
Almost never	23	9.0
A little bit	68	26.7
Middle	135	52.9
Very much	29	11.4
Women's perception of sexual intercourse as a risk during pregnancy		
No	220	86.3
Yes	35	13.7
Women's perception of risk-limiting sexual intercourse during pregnancy		
Risk of premature birth	7	28.0
Bleeding	4	16.0
Risk of miscarriage	11	44.0
Infection	3	12.0
Restriction of sexual intercourse during pregnancy by the doctor		
No	215	84.3
Yes	40	15.7
The doctor's reason for restricting sexual intercourse during pregnancy		
Risk of miscarriage	18	52.9
Risk of premature birth	10	29.4
Vaginal bleeding	5	14.7
Sexually transmitted disease in the pregnant woman or her partner	1	2.9
Placenta previa	3	8.8
Premature opening of the gestational sac	1	2.9
Recurrent miscarriage in previous pregnancies	2	5.9
Premature birth in previous pregnancies	1	2.9
I do not know the reason	2	5.9

Table 2. Continued		
Knowledge on sexuality	**n**	**%**
General relationship status in marriage		
I am very satisfied	**65**	**25.5**
I am satisfied	173	67.8
Not satisfied	11	4.3
I am very dissatisfied	6	2.4
Sexual life before pregnancy		
I am very satisfied	55	21.6
I am satisfied	176	69.0
Not satisfied	18	7.1
I am very dissatisfied	6	2.4
Sexual life during pregnancy		
I am very satisfied	36	14.1
I am satisfied	162	63.5
Not satisfied	44	17.3
I am very dissatisfied	13	5.1
Sexual life satisfaction during pregnancy compared with pre-pregnancy		
Negative change	95	37.3
No change	138	54.1
Positive change	22	8.6
Sexual intercourse during pregnancy		
Yes	173	67.8
No	82	32.2
Reason for not having sexual intercourse		
Doctor banned	25	30.1
My husband did not want it	9	10.8
I did not want to	32	38.6
My husband and I did not want it to be mutual	20	24.1
Other*	1	1.2
*: Environment unsuitability		

higher total attitude scores toward sexuality during pregnancy than those in the second trimester ($p<0.05$). Furthermore, the level of approval of sexual intercourse during pregnancy was significantly higher among women experiencing their second pregnancy than among those with three or more pregnancies ($p<0.05$). In addition, pregnant women who perceived sexual intercourse during pregnancy as a risky situation had significantly higher scores for beliefs and values concerning sexuality during pregnancy ($p<0.05$; Table 4).

No statistically significant differences were observed in pregnant women's risk perception toward the fetus, risk perception toward themselves, or overall risk perception according to age group, gestational week, number of pregnancies, or emotional assessment of pregnancy ($p>0.05$). However, pregnant women who did not consider sexual intercourse during pregnancy to be a

risky situation had significantly higher total risk perception scores ($p<0.05$; Table 5).

No statistically significant association was identified between pregnant women's overall risk perception during pregnancy and their total attitudes toward sexuality ($r=0.005$; $p>0.05$; Table 6).

Table 3. Mean Scores of Pregnant Women's Risk Perception During Pregnancy and Attitude Towards Sexuality Scale

Scales	Score range	Min-max	Mean ± SD
Anxiety about sexual intercourse during pregnancy	9-45	9-45	31.55±6.90
Beliefs and values about sexuality in pregnancy	10-50	10-50	37.90±8.63
Affirming sexuality during pregnancy	15-75	21-71	46.62±8.86
Total attitude towards sexuality in pregnancy	34-170	46-166	116.07±21.26
Pregnant woman's risk perception towards her baby	0-100	0-90	33.67±24.33
Pregnant woman's risk perception towards herself	0-100	0-94	34.44±23.64
Total risk perception during pregnancy	0-100	0-90	34.02±22.05

Mean: Average, SD: Standard deviation

Table 4. Distribution of Pregnant Women's Attitude Towards Sexuality Scale Scores According to Sociodemographic Variables (n=255)

Sociodemographic variables	Anxiety about sexual intercourse during pregnancy	Beliefs and values about sexuality in pregnancy	Affirming sexuality in pregnancy	Total attitude towards sexuality in pregnancy
	Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD
Age group				
18-22 (a)	33.59±5.74	40.66±8.34	48.17±7.44	122.41±18.27
23-27 (b)	31.33±6.84	37.84±8.34	46.78±9.79	115.95±21.23
28-31 (c)	31.93±7.13	38.91±8.83	47.41±8.83	118.25±22.05
32-37 (d)	30.63±7.65	36.87±9.00	45.38±8.59	112.88±22.64
37+ (e)	30.75±5.9	34.08±7.41	44.67±7.72	109.5±17.59
Statistical analysis	x^2=11.4; p=0.355	x^2=11.3; **p=0.024 a>e, b>e, c>e**	x^2=2.7; p=0.606	x^2=7.5; p=0.112
Gestational week				
1st trimester (a)	32.89±8.15	39.11±9.86	49.11±11.68	121.11±27.63
2nd trimester (b)	30.98±6.02	37.54±7.59	45.82±7.02	114.33±17.36
3rd trimester (c)	31.75±7.38	37.88±9.36	46.66±9.55	116.28±22.72
Statistical analysis	x^2=5.3; p=0.072	x^2=3.0; p=0.227	x^2=5.2; p=0.074	x^2=6.0; **p=0.049 a>b**
Number of pregnancy				
1 (a)	31.48±7.96	38.02±9.46	46.48±9.96	115.97±24.63
2 (b)	32.12±5.92	37.94±8.05	48.11±8.23	118.16±18.49
3 and above (c)	30.50±5.61	37.48±7.49	43.71±5.78	111.69±15.79
Statistical analysis	x^2=2.1; p=0.354	x^2=0.7; p=0.697	x^2=10.7; **p=0.005 b>c**	x^2=3.1; p=0.210
Women's perception of sexual intercourse as a risk during pregnancy				
No	31.58±6.97	37.53±8.58	46.9±8.94	116.00±21.48
Yes	31.4±6.52	40.23±8.65	44.89±8.26	116.51±20.13
Statistical analysis	U=3817.5; p=0.936	U=3006.5; **p=0.037**	U=3267.5; p=0.150	U=3631.0; p=0.589

Mean: Average, SD: Standard deviation, U: Mann-Whitney U analysis, x^2: Kruskal-Wallis H analysis

Table 5. Distribution of Pregnant Women's Risk Perception in Pregnancy Scale Scores Based on Sociodemographic Variables (n=255)			
Sociodemographic variables	**Pregnant woman's risk perception towards her baby**	**Pregnant women's risk perception towards herself**	**Total risk perception during pregnancy**
	Mean ± SD	**Mean ± SD**	**Mean ± SD**
Age group			
18-22 (a)	40.41±25.21	39.12±24.04	39.84±23.00
23-27 (b)	34.50±25.31	35.30±24.63	34.86±22.63
28-32 (c)	30.73±22.03	32.10±21.65	31.34±20.38
32-37 (d)	31.62±24.72	34.16±24.06	32.75±22.55
37+ (e)	35.66±25.46	33.25±25.33	34.59±22.72
Statistical analysis	x^2=4.4; p=0.359	x^2=1.9; p=0.748	x^2=3.4; p=0.491
Gestational week			
1st trimester (a)	25.08±20.14	30.19±24.23	27.35±20.69
2nd trimester (b)	33.67±22.65	35.21±21.99	34.35±20.30
3rd trimester (c)	37.08±27.12	35.16±25.43	36.23±24.28
Statistical analysis	x^2=5.5; p=0.063	x^2=1.8; p=0.410	x^2=4.3; p=0.116
Number of pregnancy			
1 (a)	31.96±24.83	34.93±24.67	33.28±23.05
2 (b)	36.02±22.64	33.81±22.15	35.04±20.52
3 and above (c)	33.26±26.64	34.49±24.43	33.81±22.88
Statistical analysis	x^2=2.5; p=0.286	x^2=0.1; p=0.980	x^2=0.8; p=0.656
Women's perception of sexual intercourse as a risk during pregnancy			
No	34.86±24.63	35.61±24.12	35.19±22.35
Yes	26.23±21.21	27.14±19.06	26.63±18.67
Statistical analysis	U=3072.5; p=0.055	U=3112.0; p=0.069	U=3000.5; p=0.036
Mean: Average, SD: Standard deviation, U: Mann-Whitney U analysis, x^2: Kruskal-Wallis H analysis			

Table 6. Analyzing the Relationship Between the Two Scales					
		Anxiety about sexual intercourse during pregnancy	**Beliefs and values about sexuality in pregnancy**	**Affirming sexuality in pregnancy**	**Total attitude towards sexuality in pregnancy**
Pregnant woman's risk perception towards her baby	**r**	0.024	0.017	-0.023	0.006
	p	0.706	0.784	0.721	0.924
Pregnant woman's risk perception towards herself	**r**	0.016	0.018	-0.008	-0.001
	p	0.802	0.774	0.893	0.991
Total risk perception during pregnancy	**r**	0.024	0.021	-0.020	0.005
	p	0.700	0.737	0.751	0.936
r: Spearman's rho correlation coefficient					

DISCUSSION

Pregnancy includes emotional and physiologic changes that affect the woman, her partner, and all her relationships, especially sexuality [2]. Pregnancy involves various potential maternal and fetal risks, which may influence and increase pregnant women's perceptions of risk [12]. A heightened perception of risk may predispose individuals to avoid engaging in behaviors associated with the relevant situation [15]. All these affect the perspectives and attitudes of women and their spouses towards sexuality during pregnancy [16]. As research investigating pregnant women's attitudes and risk perceptions regarding sexuality remains limited, the findings of this study were interpreted and discussed in relation to the available literature.

In this study, the mean total attitude score of pregnant women towards sexuality was 116.07±21.26, which was above the moderate level. In the literature, it was found that the attitudes of

pregnant women [5,20] and spouses [5] towards sexuality were more positive than moderate. In contrast to our study results, Moyano et al. [21] found that non-pregnant women had higher self-esteem and sexual assertiveness than pregnant women. In our study, the fact that almost all pregnant women (91.8%) had positive feelings about the current pregnancy and 82.4% had a planned pregnancy may have positively affected the attitudes of pregnant women towards sexuality.

In this study, it was determined that pregnant women aged below 31 years were positively affected by beliefs and values toward sexuality. In a previous study, it was found that beliefs and values towards sexuality were positively affected positively in pregnant women under the age of 29 who found it safe to have sexual intercourse during pregnancy [20]. Another study found that gestational age was parallel with libido; the younger the age, the more positive the sexual attitude [22]. As a remarkable result, our study determined that beliefs and values towards sexuality were positively affected by pregnant women who perceived sexual intercourse during pregnancy as risky. The study by Kahveci and Cirban Ekrem [6] found that pregnant women have a negative attitude towards sexuality. These findings differ from those of previous studies, which have documented positive attitudes toward sexuality during pregnancy [20,23].

In the present study, pregnant women aged 36-48 years demonstrated more favorable attitudes toward sexuality compared with those in other age groups. Previous studies have yielded inconsistent findings regarding the association between age and sexual attitudes during pregnancy, with some reporting an increase in positive attitudes with advancing age [23], whereas others have indicated a decline [20]. It was reported that 87.9% of Nigerian pregnant women did not find sexual intercourse during pregnancy objectionable, and 61.1% of them engaged in sexual activity during pregnancy [24], whereas 78% of Turkish pregnant women and 52.5% of their partners found sexual intercourse safe during pregnancy [25]. Although our results are similar to the literature, it is thought that the attitude of pregnant women towards sexuality is shaped within the framework of demographic, obstetric, and cultural factors [20,23]. In addition, more than half of the pregnant women (63.5%) in our study were satisfied with their sexual life during pregnancy and had received information about sexual life, and awareness (51.4%) may have positively affected our findings.

Although the frequency of sexual intercourse during pregnancy decreases significantly, it has been reported that many people worldwide have positive attitudes towards sexuality during this period [26]. This study determined that the attitudes of pregnant women in the first trimester were highly positive toward sexuality during pregnancy. In the study by Şolt Kırca and Dagli [7], it was found that the attitude towards sexuality of pregnant women up to the third trimester was highly positive. In another study, contrary to our findings, the attitudes of pregnant women towards sexuality in the third trimester were reported to be highly positive [27]. Another study found that most pregnant women (66.7%) had a positive attitude towards sexuality during pregnancy, and the percentages of pregnant women with a positive attitude varied by trimester: 57.1% (first trimester), 82.1% (second trimester), and 62.1% (third trimester) [23]. Previous studies have indicated that pregnant women and their partners may refrain from sexual intercourse during pregnancy due to negative perceptions of pregnancy-related physical changes, such as weight gain and alterations in skin color, as well as psychological changes, including anxiety and depression, and concerns about potentially harming the fetus [23,28]. Another qualitative study reported that fatigue, breast tenderness, numbness, and increased abdominal size were associated with a reduced frequency of sexual intercourse, while pregnancy-related physical changes adversely affected women's sexual experiences. However, some pregnant women reported an increased desire for sexual activity during pregnancy [28]. Physical and psychological difficulties that become more pronounced as pregnancy progresses, concerns about potential harm to the fetus, fears that sexual intercourse may result in miscarriage or preterm birth, and beliefs that sexual activity during pregnancy is sinful or unsafe may contribute to sexual dysfunction among pregnant women [6,7,28]. In our study, the high level of education of pregnant women and their spouses and their high level of awareness since the majority lived in urban areas may have positively affected their attitudes towards sexuality. It was determined that women with second pregnancy approved sexuality during pregnancy at a higher level than women with three or more pregnancies. In Aksoy et al.'s [18] study, it was reported that couples' attitudes toward sexuality and marital adjustment were negatively affected as the number of pregnancies increased. The findings indicated that gestational duration, parity, limitations on sexual activity, and changes in the partner's sexual attitudes were predictive factors associated with sexual functioning during pregnancy. Prenatal care should incorporate a comprehensive needs assessment that addresses the physical, emotional, and psychological well-being of pregnant women while also taking their partners' participation into account. Pregnant women should be provided with comprehensive information on the physiological and psychological aspects of sexuality during pregnancy, safe sexual practices and relevant precautions, common sexual dysfunctions and potential management strategies, emotional intimacy and alternative forms of sexual closeness, as well as sexual health during the postpartum period. Considering the uniqueness of each couple's experiences, individualized needs should be prioritized throughout the counseling process [23]. It is thought that these results may be due to the decrease in the time allocated to each other by the spouses with the increase in responsibilities due to the increase in the number of children.

In our study, the mean total risk perception score of pregnant women during pregnancy was 34.02±22.05, which was at a moderate level. In our study, it is a remarkable result that pregnant women's risk perceptions towards themselves were higher than their risk perceptions towards their babies. In the literature, risk perceptions of pregnant women were found to be low [10,29,30]. The difference in the study results may be because risk perception

in pregnancy is a multidimensional concept affected by various personal (age, education, etc.), psychological (perception, learning, beliefs and attitudes, etc.), and social factors (family, role and status in society, time and available resources, relationship with spouse, etc.) [23].

In the present study, higher risk perception scores were observed among pregnant women who did not perceive sexual intercourse during pregnancy as a potential risk. This finding is another remarkable result of our study. In a study similar to our findings, it was found that more than half of the pregnant women perceived sexual intercourse during pregnancy as safe, but their anxiety was high [20]. Sexuality constitutes an integral aspect of human life and is influenced by a range of factors, including individual attitudes and values, behavioral patterns, personality traits, physical appearance, beliefs, emotions, and the social environment [16]. The fact that 84.3% of the pregnant women did not perceive sexual intercourse during pregnancy as risky may have been influenced by the fact that 84.3% of them were not restricted from sexual intercourse by a doctor with any diagnosis. In addition, the fact that 46.7% had their first pregnancy may have affected the risk perceptions of these pregnant women.

No statistically significant relationship was observed between pregnant women's risk perceptions and their attitudes toward sexuality during pregnancy. No study examines the relationship between risk perception and attitude towards sexuality in pregnant women. In this context, our findings in this study are unique and are thought to make an important contribution to the literature. The literature has reported that risk perception is associated with health status, health decisions, and behaviors [30-32]. It has been reported that individuals with a high perception of disease risk are associated with worse health status in future disease diagnoses [31]. Pregnant women have different risk perceptions and interpretations. Pregnancy risk perception depends on medical diagnoses and individual factors [30,33]. Our study result may have been influenced by the fact that almost all of the pregnant women did not perceive sexual intercourse during pregnancy as a risk, their pregnancy was planned, they had positive feelings about the current pregnancy, more than half of them received information about sexual life from health professionals, and 84.3% of them were not restricted from sexual intercourse by a doctor with any diagnosis.

Study Limitations

The study has several limitations. First, its single-center, cross-sectional, and descriptive design limits the extent to which the findings can be generalized. Secondly, the sample was limited to pregnant women who presented to the obstetrics and gynecology outpatient clinic at the institution where the study was conducted and who voluntarily agreed to participate. Therefore, the findings may not be generalizable to the broader population of pregnant women.

CONCLUSION

In the present study, pregnant women demonstrated an overall positive attitude toward sexuality, with the mean total score being above the moderate level. Pregnant women aged below 31 years exhibited more favorable beliefs and values concerning sexuality. Highly positive attitudes toward sexuality during pregnancy were observed among women in the first trimester, while women in their second pregnancy reported greater approval of sexual activity.

Our study determined that pregnant women's mean total risk perception score during pregnancy was moderate, and that pregnant women who viewed and experienced sexual intercourse as normal during pregnancy had a high risk perception. No statistically significant relationship was identified between pregnant women's risk perceptions and their attitudes toward sexuality during pregnancy.

In light of the study findings, healthcare professionals should assess pregnant women's perceptions of sexuality and pregnancy-related risks and provide pregnant women and their partners with comprehensive education and counseling regarding these issues.

Ethics

Ethics Committee Approval: The study received ethical clearance from the Çankırı Karatekin University Ethics Committee (approval no: 20, date: 03.06.2021) and institutional approval from the relevant institution (09.08.2021/E-53449070-779-88).

Informed Consent: Before enrollment, the pregnant women were informed about the study's purpose and procedures. Written and verbal informed consent was obtained from all participants who agreed to take part in the study.

Acknowledgments

All authors are grateful to all the participants for their useful contributions to this study.

Footnotes

Çankırı Karatekin University, Institute of Health Sciences, 2022, Master's Thesis.

Authorship Contributions

Concept: AKG, SY; Design: AKG, SY; Data Collection or Processing: AKG; Analysis or Interpretation: AKG, SY; Literature Search: AKG, SY; Writing: AKG, SY.

Conflict of Interest: No conflict of interest was declared by the authors.

Financial Disclosure: The authors declared that this study received no financial support.

REFERENCES

1. Grussu P, Vicini B, Quatraro RM. Sexuality in the perinatal period: a systematic review of reviews and recommendations for practice. Sex Reprod Healthc. 2021; 30: 100668. [Crossref]
2. Košec T, Došler AJ, Kusterle M, Mivšek AP. Sex life during pregnancy: survey among women. Obzornik Zdravstvene Nege. 2019; 53(4): 280-7. [Crossref]
3. Bilge Ç, Mecdi Kaydırak M, Özlem Ö, Akdolun Balkaya N. Evaluation of sexual function and sexual satisfaction in pregnancy women. Journal of Inonu University Health Sciences Vocational School. 2021; 9(2): 684-93. [Crossref]

4. Alan Dikmen H, Gönenç İM, Özaydın T. Sexuality during pregnancy: attitudes, self-efficacy and self-consciousness. Women Health. 2023: 1-13. [Crossref]
5. Jawed-Wessel S, Santo J, Irwin J. Sexual activity and attitudes as predictors of sexual satisfaction during pregnancy: a multi-level model describing the sexuality of couples in the first 12 weeks. Arch Sex Behav. 2019; 48: 843-54. [Crossref]
6. Kahveci M, Cirban Ekrem E. The determination of the relationship between pregnant women's self-perception and dyadic adjustment in relation to sexual attitudes, and identification of influencing factors. Unika Journal of Health Sciences. 2025; 5(1): 42-59. [Crossref]
7. Şolt Kırca A, Dagli E. Sexual attitudes and sexual functions during pregnancy: a comparative study. Eur J Obstet Gynecol Reprod Biol X. 2023: 100215. [Crossref]
8. Mirzaei N, Jahanian Sadatmahalleh S, Bahri Khomami M, Moini A, Kazemnejad A. Sexual function, mental health, and quality of life under strain of COVID-19 pandemic in Iranian pregnant and lactating women: a comparative cross-sectional study. Health Qual Life Outcomes. 2021; 19(1): 1-8. [Crossref]
9. Topatan S, Koç E. Female sexual distress and associated factors during pregnancy. F.Ü. Sağl Bil Tıp Derg. 2020; 34(1): 13-9. [Crossref]
10. Karataş Okyay E, Sunay Z. Examination of the relationship between perception of risk and wellness in pregnancy. Socrates Journal of Interdisciplinary Social Studies. 2022; 14: 1-12. [Crossref]
11. Lee S, Holden D, Webb R, Ayers S. Pregnancy related risk perception in pregnant women, midwives & doctors: a cross-sectional survey. BMC Pregnancy Childbirth. 2019; 19(1): 1-8. [Crossref]
12. Evcili F, Dağlar G. Perception of pregnancy risk scale: Turkish validity and reliability study. Cukurova Med J. 2019; 44: 211-22. [Crossref]
13. Gözüyeşil E, Özertürk Ö. Perception of risk in pregnancy and determination of affecting factors; inter-trimester comparison. Journal of Adnan Menderes University Health Sciences Faculty. 2022; 6(3): 467-77. [Crossref]
14. Arslan H, Bani B, Güneş K, Eryurt MA. High-risk pregnancies in Turkey: the findings of 2018 TDHS. Turkish Journal of Population Studies. 2020; 42(1): 64-91. [Crossref]
15. Karaoğlan S, Durukan T. Benefit and risk perception of online shopping at digital marketing era. Journal of Business Research-Turk. 2020; 12(2): 1072-82. [Crossref]
16. Sezer NY, Şentürk Erenel A. Development of an attitude scale toward sexuality during pregnancy. J Sex Marital Ther. 2021; 47(5): 492-507. [Crossref]
17. Tandoğan Ö, Mecdi Kaydırak M, Oskay Ü. Myths of men about sexual life in pregnancy. Androl Bul. 2019; 21(4): 134-9. [Crossref]
18. Aksoy A, Vefikuluçay Yılmaz D, Yılmaz M. What affects sexual life in pregnancy? Journal of Adnan Menderes University Health Sciences Faculty. 2019; 3(1): 45-53. [Crossref]
19. Heaman MI, Gupton AL. Psychometric testing of the perception of pregnancy risk questionnaire. Res Nurs Health. 2009; 32(5): 493-503. [Crossref]
20. Güney E, Bal Z. Evaluation of pregnant women's attitudes towards sex life and sexuality. Androl Bul. 2023; 25(1): 18-26. [Crossref]
21. Moyano N, Granados R, Durán CA, Galarza C. Self-esteem, attitudes toward love, and sexual assertiveness among pregnant adolescents. Int J Environ Res Public Health. 2021; 18(3): 1270. [Crossref]
22. Sossah L. Sexual behavior during pregnancy: a descriptive correlational study among pregnant women. European Journal of Research in Medical Sciences. 2014; 2(1): 16-27. [Crossref]
23. Pamuk T, Erbil N. Effect of attitudes towards sexuality on sexual function of pregnant women: a cross-sectional study. Eur J Obstet Gynecol Reprod Biol. 2025; 310: 113942. [Crossref]
24. Oche OM, Abdullahi Z, Tunau K, Ango JT, Yahaya M, Raji IA. Sexual activities of pregnant women attending antenatal clinic of a tertiary hospital in North-West Nigeria. Pan Afr Med J. 2020; 37: 140. [Crossref]
25. Aslanttekin Özçoban F, Yalnız Dilcen H. The effect of pregnancy process on marital adjustment and sexuality. Turkish Journal of Family Medicine and Primary Care. 2022; 16(4): 639-49. [Crossref]
26. Anzaku AS, Ngozi OF, Dabu BA, Edet EB. Frequency, perceptions and complications of sexual activity during pregnancy among a group of Nigerian women. International Archives of Integrated Medicine. 2015; 2(6): 54-63. [Crossref]
27. Rahimian M, Nassiri S, Saffarieh E. Pregnant women's attitude towards sexual desire and its relationship with quality of life and rumination in the last trimester of pregnancy. J Obstet Gynecol Cancer Res. 2022; 4(1): 16-23. [Crossref]
28. Leite CC, Masochini RG, Cunha AN, Paese MC, Barros CR, Jezus SV, et al. Sexuality during pregnancy: perceptions of pregnant women in an educational group. Sci Elec Arch. 2020; 13(4): 76. [Crossref]
29. Sangin S, Phonkusol C. Perception of pregnancy risk and related obstetric factors among women of advanced maternal age. PRIJNR. 2021; 25(3): 494-504. [Crossref]
30. Rajbanshi S, Norhayati MN, Nik Hazlina NH. Risk perceptions among high-risk pregnant women in Nepal: a qualitative study. BMC Pregnancy Childbirth. 2021; 21: 1-8. [Crossref]
31. Ferrer R, Klein WM. Risk perceptions and health behavior. Curr Opin Psychol. 2015; 5: 85-9. [Crossref]
32. Garfin DR, Fischhoff B, Holman EA, Silver RC. Risk perceptions and health behaviors as COVID-19 emerged in the United States: results from a probability-based nationally representative sample. J Exp Psychol Appl. 2021; 27(4): 584. [Crossref]
33. Lee S, Ayers S, Holden D. A metasynthesis of risk perception in women with high risk pregnancies. Midwifery. 2014; 30(4): 403-11. [Crossref]