

Original Research / Orijinal Araştırma

## The Effect of Pregnancy Process on Marital Adjustment and Sexuality

### Gebelik Sürecinin Evlilik Uyumuna ve Cinselliğe Etkisi

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#### Abstract

**Objective:** The study aimed to determine the relationship between the sexuality and marital adjustment of pregnant women and their husbands in pregnancy. **Methods:** This cross-sectional study was conducted with 120 pregnant women and their husbands. The data were collected using a participant information form, the Libido Scoring System (LSS) and Marital Adjustment Scale (MAS). Paired-samples t-test, and Spearman's correlation analysis were used. **Results:** The mean LSS score in the men was found as  $7.76 \pm 1.47$  before pregnancy and  $6.60 \pm 3.94$  during pregnancy. While the same score was  $9.85 \pm 1.41$  before pregnancy among pregnant women, it decreased to  $8.53 \pm 1.62$  during pregnancy. LSS results proved good levels of sexual desire, and the decrease in the sexual desire levels during pregnancy was statistically significant for the pregnant women and their husbands ( $p=0.001$ ;  $p=0.001$ ). A positive relationship was found between the sexual desire levels of the pregnant women before and during pregnancy ( $p=0.000$ ), and a negative one between their marital adjustment levels before and during pregnancy ( $p=0.003$ ;  $p=0.013$ ). The pregnant women were found significant and positive relationship between the marital adjustment levels before and during pregnancy ( $p=0.000$ ). There was a positive relationship between the sexual desire levels of the husbands before and during pregnancy ( $p=0.001$ ). Additionally, a strong positive relationship was found between the marital adjustment levels before and during pregnancy in the spouses ( $p=0.000$ ). **Conclusions:** The case that the women and their husbands were healthy before pregnancy, in terms of sexual life and marital adjustment, had a positive effect on the pregnancy period.

**Key words:** Marital Adjustment, Sexuality During Pregnancy, Sexual Desire

#### Özet

**Amaç:** Bu çalışma, gebe kadınların ve eşlerinin gebelikte cinsellik ve evlilik uyumu arasındaki ilişkiyi belirlemeyi amaçlamıştır. **Yöntem:** Kesitsel tipteki bu çalışma 120 gebe ve eşleri ile yapılmıştır. Veriler katılımcı bilgi formu, Libido Puanlama Sistemi (LSS) ve Evlilik Uyum Ölçeği (MAS) kullanılarak toplanmıştır. Eşleştirilmiş örneklem t testi ve Spearman korelasyon analizi kullanıldı. **Bulgular:** Erkeklerde ortalama LSS puanı gebelik öncesi  $7.76 \pm 1.47$ , gebelik sırasında  $6.60 \pm 3.94$  olarak bulundu. Gebelerde aynı puan gebelik öncesinde  $9.85 \pm 1.41$  iken gebelikte  $8.53 \pm 1.62$  bulundu. LSS sonuçları cinsel istek düzeylerinin iyi olduğunu kanıtladı ve gebelik sırasında cinsel istek düzeyindeki azalma gebeler ve eşleri için istatistiksel olarak anlamlı saptandı ( $p=0.001$ ;  $p=0.001$ ). Gebelerin gebelik öncesi ve gebelik sırasındaki cinsel istek düzeyleri arasında pozitif ( $p=0.000$ ), gebelik öncesi ve gebelik sırasındaki evlilik uyum düzeyleri arasında negatif ( $p=0.003$ ;  $p=0.013$ ) ilişki bulundu. Gebelerin gebelik öncesi ve gebelik sırasındaki evlilik uyum düzeyleri arasında anlamlı ve pozitif bir ilişki bulundu ( $p=0.001$ ). Eşlerin gebelik öncesi ve gebelik sırasındaki cinsel istek düzeyleri arasında pozitif bir ilişki vardı ( $p=0.001$ ). Ayrıca eşlerin gebelik öncesi ve gebelik sırasındaki evlilik uyum düzeyleri arasında pozitif yönde güçlü bir ilişki bulundu ( $p=0.001$ ). **Sonuç:** Kadınların ve eşlerinin gebelik öncesi cinsel yaşam ve evlilik uyumu açısından sağlıklı olmaları gebelik sürecini olumlu yönde etkilemiştir.

**Anahtar kelimeler:** Evlilik Uyumunu, Gebelikte Cinsellik, Cinsel İstek

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## Introduction

Anatomical, physiological and emotional changes that occur during pregnancy affect a woman's entire life, including her sexuality.<sup>1</sup> Physiological and hormonal changes such as increased estrogen, progesterone and prolactin levels during pregnancy, nausea, vomiting, breast tenderness, weight gain, anxiety, and fatigue may lead to decreased sexual desire and motivation, as well as avoidance of sexual intercourse.<sup>1,2</sup> Additionally, cultural, social, ethnic, and religious issues<sup>3,4</sup>, the husband's attitudes towards pregnancy, women's beliefs and misconceptions about sexual desire cause changes in sexual behavior in this period.<sup>5</sup> It was reported that the sexual performance of men is affected by both social, and psychological factors and decreases towards the end of pregnancy.<sup>6</sup> Fear of fetal injury is seen as the greatest influence on male sexual activity.<sup>3,4</sup> Fear of harming a woman may inhibit desire and arousal in men and therefore affect their sexual function.<sup>7,8</sup> Women may also be affected by fear of not being able to satisfy their husbands.<sup>2,3</sup> In addition to situations such as fear of harming the fetus, physiological reasons, satisfaction with body image and body awareness, the couple's communication is also a significant factor.<sup>9,10</sup> As in many cultures, expression of sexual problems in Turkish culture is limited due to cultural characteristics and privacy.<sup>11</sup> Even during pregnancy care, the sexual information, and advice given by healthcare personnel are limited to the time of starting sexual intercourse.<sup>12</sup> However, sexual problems, which are often experienced and not discussed due to feelings of shyness, are too important to neglect.<sup>13</sup> Couples' sexual satisfaction during pregnancy is essential for a healthy and happy marital relationship.<sup>14</sup> A satisfying sex life plays a key role in a positive relationship between marital partners and increases marital harmony.<sup>15,16</sup> Sexual health problems negatively affect couples' mental health, family, and social life, and marital adjustment.<sup>12,17,18</sup> Despite the growing body of epidemiological research conducted on pregnant women, research in Turkey about the relationship between sexual function and marital adjustment during pregnancy is limited.<sup>12,17</sup> Sexuality is a sensitive issue in Muslim-majority countries such as Turkey, and it is difficult to assess couples together.<sup>12</sup>

Despite this difficulty, the study aimed to examine the sexuality of pregnant women and their husbands, the relationship between their spouses, and marital adjustment before and during pregnancy.

Research questions;

1. Does pregnancy affect sexuality?
2. Does pregnancy affect marital adjustment?
3. Is there a relationship between sexuality and marital adjustment before and during pregnancy?

## 2. Methods

### 2.1 Study Population and Design

This is a cross-sectional study and was conducted between September 2018 and January 2019. The study was conducted in a childbirth preparation education programs of a urban municipality located in a metropolitan city of western Turkey. The birth preparation training program is a free activity of the municipality. The trainings are given by midwives who have experience in giving birth preparation training. The training is given for 3 weeks, 2 days a week. Questionnaires were applied to the pregnant women and their spouses. Participants filled out the questionnaires themselves. Between September 2018 and January 2019, primipara pregnant women and their husbands were enrolled in childbirth preparation education programmes. The sample of the study included couples who were 18 years of age or older, had a healthy pregnancy, had no risky pregnancy, had no psychiatric problems, did not use substances, and had a heterosexual relationship with their partner. Researches explained the purposes of the research to 120 couple (n=240) pregnant women and husband that agreed to participate in research and the ones who gave their verbal and written consent were picked as sampling.

### 2.2. Data Tools

The data collection form in the study was divided into three sections, one for each gender. The first section included demographic and sexuality information about the pregnant women and their husbands. The Libido Scoring System was used in the second part to assess the participants' sexuality and sexual desire. The Marital Adjustment Scale was used in the third section. A data collection form was created for women and their husbands to collect information about their sexual lives before and during pregnancy. After testing the prepared data collection form on five parents, the necessary corrections were made, and the form took its final form. Each data collection form ended up taking about 10-15 minutes to complete. Information Form: The

questionnaire form prepared for the women and their husbands included questions about sociodemographic characteristics, sexual life before and during pregnancy.<sup>1,12,17,18</sup>

**Libido Scoring System (LSS):** It was developed by Api et al.<sup>19</sup>, and the system's validity and reliability tests were applied by using the self-filling method in women. At the same time, there are studies using this scale on pregnant women in Turkey.<sup>1,20,21</sup> The fact that the Cronbach  $\alpha$  reliability coefficient is in the range of 0.40-0.60 indicates that the results are reliable.<sup>22-23</sup> In studies conducted with pregnant women using the LSS scale, Efe et al. found the cronbach  $\alpha$  value of the scale to be 0.83, Sadi et al. and it is reported as 0.41.<sup>1,20</sup> The Cronbach's  $\alpha$  reliability coefficient was found to be 0.44 in our study. Accordingly, the reliability level of the scale can be evaluated as sufficient, but at a low level. LSS is a scoring system that includes questions about the frequency of sexual desire, masturbation, who initiates sexual intercourse and orgasm, as well as statuses before and during pregnancy. Total scores in the range of 0-2 points define loss of sexual desire, 3-4 points define low, 5-7 points define good, and 8-12 points define high sexual desire.

**Marital Adjustment Scale:** Developed by Locke and Wallace<sup>24</sup> and adapted to Turkish by Tutrael-Kışlak, the scale measures satisfaction from marital relationship and marital adjustment. The Cronbach's  $\alpha$  coefficient of the scale was reported as 0.80.<sup>23-25</sup> In the scale that includes 15 questions, one question is related to general compliance, and the single item scored between 0 (very unhappy) and 6 (perfectly happy). Eight questions about agreement are scored on a 6-point Likert scale ranging from 0 (absolutely disagree) to 5 (absolutely agree). Six questions evaluate conflict resolution, commitment, and communication. The total score obtained from the scale varies between 0 and 60. Those who score above 43 are considered compatible in terms of marital relations, and those who score below it are considered incompatible. In this study, the Cronbach's  $\alpha$  reliability coefficient of the scale was found to be 0.69.

### **2.3. Ethical Considerations**

The research was approved by the author's university ethics review board (Date: 21-03-2018 No: 2018/56). To conduct the study, the necessary permission was obtained from municipality. Before starting the study, the purpose of the study was explained. A consent form was filled out by all participants. All procedures involving human participants were performed in accordance with the institutional and national ethical standards and with the principles of the 1964 Declaration of Helsinki and its later amendments.

### **2.4. Data Analysis**

We entered the data into the Statistical Package for the Social Sciences (SPSS) (version 22.0, Chicago, IL, USA) for analysis. Frequency and mean value analyses were applied to the introductory information. To determine the normality of the distribution of the data, we applied Kolmogorov-Smirnov and Shapiro-Wilk tests. The introductory information of the women was analyzed for frequency and means. The LSS and marital adjustment mean scores of the pregnant women and their husbands before and during pregnancy were compared using a paired-samples t-test. To assess the importance of the correlation between the scales, Spearman's Correlation analysis was performed. The findings are reported to be significant at a p-value smaller than 05.

### **3. Results**

The mean age of the women participating in the study was  $25.96 \pm 3.73$ , and that of their husband was  $29.16 \pm 4.41$ . 55% of the women and 46.7% of the men were university graduates. The income levels of the couples were between 1000 and 2000 Turkish Liras as the minimum wage for 54.2% of them, and 90% of the participants were nuclear families. (Table 1).

**Table 1. Sociodemographic characteristics of pregnant women and their husbands**

Descriptive Characteristics		Women		Men	
		n	%	n	%
<b>Educational Status</b>	Primary	19	15,8	22	18,4
	High School	35	29,2	42	35,0
	College and further	66	55,0	56	46,7
<b>Occupation</b>	Civil Servant	5	4,2	20	16,7
	Worker	11	9,2	63	52,5
	Self-employed	5	4,2	22	18,3
	Housewife	99	82,5	15	12,5
<b>Longest place of residence</b>	Village	32	26,7	26	21,7
	Town	29	24,2	8	6,7
	City	59	49,2	86	71,7

More than two-thirds of the couples planned their pregnancy and were happy when they learned about their pregnancy. Additionally, 78% of the pregnant women and 52.5% of their husbands thought that sexuality is safe during pregnancy. While 62.5% of the pregnant women and 55% of their husbands did not receive sexuality education during their follow-up, 52.5% of the pregnant women and 70.4% of their husbands' received information from midwives and healthcare personnel. More than 60% of the couples stated that they found pregnant women sexy, and almost half of them stated that pregnancy affects sexuality (Table 2).

**Table 2. Information about the sexual life of pregnant women and their husband**

Descriptive characteristics		Pregnant Woman		Husband	
		n	%	n	%
<b>Planning pregnancy with spouse</b>	Yes	105	87.5	106	88.3
	No	15	12.5	14	11.7
<b>Perceived feeling upon learning pregnancy</b>	Sadness and negative emotions	6	5.0	3	2.5
	Happiness, joy, positive emotions	105	87.5	103	85.8
	Being unable to understand anything	9	7.5	14	11.7
<b>Addressing sexual intercourse as safe during pregnancy</b>	Safe	94	78.3	63	52.5
	Not Safe	8	6.7	19	15.8
	Not sure	18	15.0	38	31.7
<b>Having sexuality education in antenatal care</b>	Yes	45	37.5	54	45.0
	No	75	62.5	66	55.0
<b>Information sources about sexual information used</b>	Media	27	24.5	10	18.5
	Midwife and health professional	69	52.5	38	70.4
	Books	13	10.8	0	0
	Friend/Family	11	9.2	6	11.1
<b>Being sexy while pregnant</b>	Yes	72	60.0	80	66.7
	No	48	40.0	40	33.3
<b>Effect of pregnancy on sexuality</b>	Yes	47	39.2	53	44.2
	No	73	60.8	67	55.8

It was also found that 95% of the pregnant women got married willingly and received emotional support, 66.7% considered the changes occurring in pregnancy as normal, 92.5% talked about their sexual life with their husband, the sexual pleasures of 53.3% were not affected by pregnancy, 54.2% did not experience pain during sexual intercourse, and 44.2% had problems with sexual intercourse in the first trimester. Additionally, 59.2% of the pregnant women stated that the baby would be harmed during sexual intercourse, the sexual desire of 58.3% decreased, the husbands of 40% lost their sexual attractiveness (Table 3).

**Table 3. Characteristics of pregnant women related to pregnancy and sexuality in pregnancy**

Variables		n	%
Willingly married to spouse	Yes	115	95.8
	No	5	4.2
Having emotional support from spouse	Yes	114	95.0
	No	6	5.0
Perceiving changes during pregnancy	Bad	10	8.3
	Normal	80	66.7
	Good	18	15.0
	Very Good	12	10.0
Speaking about sexuality with husband before Pregnancy	Yes	111	92.5
	No	9	7.5
Unwilling sexual intercourse during pregnancy	Yes	24	20.0
	No	96	80.0
Evaluating the change in sexuality during pregnancy	No change	64	53.3
	I got more pleasure from sex	17	14.2
	I got less pleasure from sex	26	21.7
	I got completely out of sexuality	13	10.8
Pain in sexual intercourse during pregnancy	No	65	54.2
	Yes, a little	40	33.3
	Yes, moderate	11	9.2
	Yes, severe	4	3.3
Trimester with sexual problems during pregnancy	1. trimester	53	44.2
	2. trimester	32	26.7
	3. trimester	35	29.2
Feeling uncomfortable after sex	Yes	75	62.5
	No	45	37.5
Thinking that the baby will be harmed during sexual activity	Yes	71	59.2
	No	49	40.8
Decreased sexual desire during pregnancy	Yes	70	58.3
	No	50	41.7
I think I lost my attractiveness	Yes	48	40.0
	No	72	60.0
Pregnancy-related inexperience in sexual intercourse	Yes	17	14.2
	No	103	85.8
Non-pregnancy reason that decreases sexual desire during pregnancy (belief, extended family etc.)	Yes	3	2.5
	No	117	97.5
Healthcare staff's recommendation about sexuality affects your frequency of sexual intercourse	Yes	7	5.8
	No	113	94.2
The effect of suggestions about sexuality by someone other than healthcare professionals on the frequency of your sexual intercourse	Yes	6	5.0
	No	114	95.0
Fear of sexuality causing premature birth	Yes	11	9.2
	No	109	90.8

As reported in the study's research question, an evaluation was made on the scale used to examine sexual life during pregnancy. The mean LSS score in the men was found as  $7.76 \pm 1.47$  before pregnancy and  $6.60 \pm 3.94$  during pregnancy. While the same score was  $9.85 \pm 1.41$  before pregnancy in the pregnant women, it decreased

to  $8.53 \pm 1.62$  during pregnancy. This indicated that the pregnant women had a high level of sexual desire. As a result, we found that the total LSS results proved good levels of sexual desire, and the decrease in the sexual desire levels during pregnancy was statistically significant for the pregnant women and their husbands ( $p=0.001$ ;  $p=0.000$ ). The frequency of sexual intercourse and masturbation scores among the LSS dimensions of the husbands of the pregnant women were found to be significantly decreased during pregnancy compared to the pre-pregnancy period ( $p=0.001$ ;  $p=0.032$ ). In the pregnant women, it was determined that the scores of frequencies of sexual intercourse ( $p=0.001$ ) and orgasm ( $p=0.001$ ), which are among the LSS dimensions, were significantly reduced during pregnancy in comparison to the pre-pregnancy period. On the other hand, it was found that the score for initiating sexual intercourse significantly increased during pregnancy in comparison to the pre-pregnancy period.

As reported in the study's another research question, an evaluation was made on the scale used to examine marital adjustment during pregnancy. According to this scale, those who have a mean MAS score above 43 points are considered well-adjusted in terms of marital relations, and those who have scores below 43 points are considered as poorly adjusted. We found the mean total MAS score of the husbands of the pregnant women as  $33.90 \pm 16.13$  before pregnancy and  $34.86 \pm 16.00$  during pregnancy. We also found a significant increase in the husbands' marital adjustment levels during pregnancy ( $p=0.003$ ). The mean total MAS score of the pregnant women was  $34.99 \pm 13.96$  before pregnancy and  $35.67 \pm 15.67$  during pregnancy. No significant difference was found for the increase in the marital adjustment levels of the pregnant women during pregnancy (Table 4).

As stated in another research question of the study, the relationship between sexuality and marital adjustment was evaluated for before and during pregnancy assessment. A positive relationship was found between the sexual desire levels of the pregnant women before and during pregnancy ( $p=0.001$ ), and a negative one between their marital adjustment levels before and during pregnancy ( $p=0.003$ ;  $p=0.013$ ). The pregnant women was found significant and positive relationship between the marital adjustment levels before and during pregnancy ( $p=0.001$ ). There was a positive relationship between the sexual desire levels of the husbands before and during pregnancy ( $p=0.001$ ). Additionally, a strong positive relationship was found between the marital adjustment levels before and during pregnancy in the spouses ( $p=0.001$ ). There was no significant relationship between LSS and marital adjustment before or during pregnancy (Table 5).

**Table 4. Examination Of Pregnant Women’s And Their Husband’ LSS Questions And Its Sub-Questions And Their MAS Before And During Pregnancy**

	Husbands				Pregnant women			
	Before pregnancy Mean±SD	During Pregnancy Mean±SD	t	P	Before pregnancy Mean±SD	During Pregnancy Mean±SD	t	P
<b>LSS<sup>a</sup> Total score</b>	7.76±1.47	6.60±3.94	3.34	<b>0.001**</b>	9.85±1.41	8.53±1.62	11.60	<b>0.000**</b>
<b>LSS Frequency of sexual intercourse</b>	2.29±0.72	1.17±0.76	15.27	<b>0.000**</b>	3.30±0.69	2.25±0.76	13.68	<b>0.000**</b>
<b>LSS Starting sexual intercourse</b>	1.98±0.54	1.85±0.78	1.74	0.083	1.94±0.49	2.08±0.69	-2.59	<b>0.011*</b>
<b>LSS orgasm</b>	2.60±0.76	2.76±3.71	-0.50	0.617	2.65±0.90	2.26±0.97	5.41	<b>0.000**</b>
<b>LSS masturbation</b>	0.89±0.38	0.08±0.39	2.16	<b>0.032*</b>	1.95±0.21	1.92±0.26	1.00	0.319
<b>MAS<sup>b</sup> Total Score</b>	33.90±16.13	34.86±16.00	-3.01	<b>0.003**</b>	34.99±13.96	35.67±14.27	-1.33	0.183

*LSS<sup>a</sup> =Libido scoring system, MAS<sup>b</sup> =Marital Adjustment Scale,  
t=Paired-Samples T-Test, \*P<0.05; \*\*p<0.01*

**Table 5. Relationship between LSS for Pregnant Women and Their Husbands and the MAS**

	LSS before pregnancy	LSS during pregnancy	MAS before pregnancy	MAS during pregnancy
LSS before pregnancy		.673 <sup>a</sup> .000**	-.267 <sup>a</sup> .003**	-.227 <sup>a</sup> .013*
LSS during pregnancy	.288 <sup>b</sup> .001**		-.091 .321 <sup>a</sup>	.050 <sup>a</sup> .587
MAS before pregnancy	.144 <sup>b</sup> .116	-.008 <sup>b</sup> .927		.917 <sup>a</sup> .000**
MAS during pregnancy	-.167 <sup>b</sup> .068	-.045 <sup>b</sup> .625	.976 <sup>b</sup> .000**	

LSS=Libido scoring system, MAS=Marital Adjustment Scale  
<sup>a</sup>=pregnant women, <sup>b</sup> = pregnant husband, \*p<0.05; \*\*p<0.01.  
 Spearman rank correlation coefficient.



#### 4. Discussion

In this study, the sexual life and marital adjustment of pregnant women and their husbands were evaluated. Sexuality is a sensitive issue in Muslim-majority countries such as Turkey, and it is difficult to assess couples together. There is limited research evaluating sexuality with pregnant women and their partners in Turkey, and no research has been published investigating the relationship between sexual desire in both men and women and their marital adjustment. In this respect, the findings of this study may provide important information about sexuality for women and men during pregnancy.

This study observed that 78% of the pregnant women and 52.5% of their husbands found sexuality to be safe during pregnancy. In a previous study, 42.9% of women and 44.8% of men considered sexual intercourse safe during pregnancy.<sup>21</sup> Similar results have been reported in research conducted with pregnant women in Iran, Spain, Tunisia and Croatia.<sup>9-26-27-28</sup> The higher rates of pregnant women and their husbands in this study to find sexual intercourse safe during pregnancy in comparison to the literature may have been due to the fact that the pregnant women attended the childbirth preparation class.

This study, most pregnant women reported that they got married willingly and the majority of them report that they regard the changes in pregnancy as normal, and 92.5% of them talked about their sexual life with their husbands. Another study reported that the quality of sexual life of those who got married willingly was higher.<sup>17</sup> In this study, it was a positive outcome that almost all of the pregnant women talked about their sexual lives with their spouses. It is thought that this finding may be related to the positive communication between the spouses due to their willingness to marry each other.

The finding that one out of every five pregnant women had sexual intercourse against their will was remarkable in our study. Some studies reported that pregnant women experience sexual intercourse unwillingly to prevent the infidelity of their partners.<sup>1,29</sup> In our study, the reason why the women had involuntary sexual intercourse with their husbands may have been related to their unwillingness to be cheated on or to the expectation of women to obey the demands of men for sexual intercourse in terms of the traditional Turkish culture and religion.

In the study, most of the pregnant women had problems in sexual intercourse in the first trimester. Similarly, different studies have shown that there is a significant decrease in the sexual desire of pregnant women during the first trimester.<sup>5, 30-32</sup>

In the study, the libido level of the pregnant women was found to be in the high category, while it decreased during pregnancy in comparison to the pre-pregnancy period. In studies in the literature, it was reported that the sexual desire levels of women during pregnancy were significantly lower than before pregnancy.<sup>1,21,32,33</sup> In this study, the frequency of sexual intercourse and orgasm among the pregnant women decreased, but the rate of starting sexual intercourse among the pregnant women increased during pregnancy. Studies have reported a decrease in the frequency of sexual intercourse during pregnancy.<sup>33,34</sup> In another study, the rate of initiating sexual intercourse was 5.3% in the pre-pregnancy period in women, while it increased to 6.6% during pregnancy; in men, it was found that the rate of initiating sexual intercourse in the pre-pregnancy period was 94.5%, while it decreased to 93.4% during pregnancy.<sup>1</sup> In the literature, an increase in the rate of initiating sexual intercourse in women during pregnancy has been reported.<sup>35-36</sup> This finding suggested that fathers may be reluctant to worry about harming the baby or the mother.

The libido level of the husbands of the pregnant women was found to be in the good category, and it was lower during pregnancy in comparison to before pregnancy. There was a decrease in the frequency of sexual intercourse and masturbation in the men. In studies where couples were evaluated together, it was reported that the desire of partners decreased.<sup>21,32</sup> Similarly, a study conducted in Iran reported that sexual dysfunction increases in couples during pregnancy.<sup>37</sup> Another study included only the husbands of pregnant women, where 30.5% of these husbands reported a decrease in their libido, and 71.4% reported a decrease in sexual intercourse frequency.<sup>9</sup> The results indicating a decrease in the frequency of sexual intercourse reflected by this study were consistent with the literature.

In this study, the libido levels of the pregnant women were higher than the libido levels of the men. In the literature, it was reported that libido levels are higher in men. The finding in this study was different from the literature.<sup>2,32</sup> While a significant increase in the marital adjustment levels of the pregnant women's husbands was observed during pregnancy, no significant increase was observed in the pregnant women in our study. In studies conducted with pregnant women, marital adjustment scores were found to be higher.<sup>17,12</sup> In this study, the marriage adjustment scores were quite low and different from the current literature.

If pre-pregnancy marital adjustment levels were good in the pregnant women, they were also good during pregnancy. Similarly, the libido levels of the pregnant women were in parallel between the pre-pregnancy and

pregnancy periods. On the other hand, there was a negative relationship between the pre-pregnancy libido levels and marital adjustment before and during pregnancy. While the level of libido increased, marital adjustment decreased. This situation showed that the negative relationship between the pre-pregnancy libido level of the women and their marital adjustment did not change before and during pregnancy. However, Kıs a et al.<sup>17</sup> showed that there was a moderate positive relationship between the sexual quality of life of pregnant women and their marital adjustment. Yanikerem et al.<sup>12</sup> reported that sexual dysfunction during pregnancy affects the marital adjustment of women. Our research findings differed from the current literature in this regard.

The marital adjustment levels of the husbands of the pregnant women were in parallel before and during the pregnancy. Similarly, the libido levels of the husbands were positively correlated before and after pregnancy. If the libido and marital adjustment levels were high before pregnancy, they were also high during pregnancy. On the other hand, the sexual desire levels had no significant relationship with marital adjustment. In a study conducted on the spouses of pregnant women in Croatia, sexual satisfaction was found to be related to general marital satisfaction, spousal communication and intimacy.<sup>9</sup> Differences in results may have been due to inclusion of populations with different cultures.

The study has several limitations. Firstly, the most prominent one was that there is very little research in which husbands and wives are evaluated together in terms sexuality, and thus, we had difficulty in discussing some findings due to the absence of sexuality and marital adjustment research on couples. On the other hand, the fact that the study with spouses contributes to the limited literature can be seen as a strength of the inclusion of spouses. As this study included pregnant women who were included in antenatal education programs and their husbands, the findings of this study may not be generalized to all women in Turkey.

## 5. Conclusion

This study, the libido levels of the pregnant women and their husbands decreased during pregnancy. While there was a significant increase in the marital adjustment levels in the husbands of the pregnant women during pregnancy, such an increase was not observed in the pregnant women. If the pre-pregnancy marital adjustment levels were good in the pregnant women and their husbands, they were also good during pregnancy. While the libido level of the pregnant women increased, their marital adjustment level decreased. The libido level of the husbands and their marital adjustment were not related. In this context, it is an important factor that the marital adjustment and sexual life of pre-pregnancy couples are healthy. For this, couples should be supported in their marital adjustment and healthy sexual life with education and counseling before conception. Healthcare personnel should provide reliable information to all couples, especially to protect them from the effects of cultural beliefs and misinformation, which are common in the society.

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