



# Relationships among Increasing Age, Sexual Dysfunction, and Sexual Quality of Life in Married Women of Reproductive Age

## Üreme Çağı Evli Kadınlarında Artan Yaş, Cinsel İşlev Bozukluğu ve Cinsel Yaşam Kalitesi Arasındaki İlişki

Elçin ZOBAR, Hatice KAHYAOĞLU SÜT

Trakya University Health Sciences Institute, Department of Nursing, Edirne, Turkey

### ABSTRACT

**Objective:** This study aimed to examine the relationship among increasing age, sexual dysfunction, and sexual quality of life (SQL) in married women of reproductive age.

**Methods:** This cross-sectional study was implemented between July 2015 and April 2016. Married women aged 18-49 years (n=1,004) were stratified according to age groups (18-19, n=138; 20-24, n=153; 25-29, n=144; 30-34, n=157; 35-39, n=149; 40-44, n=135; 45-49, n=128). Data were collected using an information questionnaire, the Arizona Sexual Experiences Scale-Female (ASEX-F) questionnaire, and the Quality of Sexual Life Questionnaire-Female (SQLQ-F) questionnaire.

**Results:** Sexual dysfunction (SD) was detected in 68% of the women. The prevalence of SD increased significantly ( $p<0.001$ ) from 51.4% in the 18-19 age group to 85.2% in the 45-49 age group. In the 45-49 age group, the sexual of quality life was at its lowest (29.7%) ( $p<0.001$ ). Among married women of reproductive age with increasing age and in women in the 45-49 age group, the level of SD increased ( $p=0.021$ ), whereas the sexual of quality life decreased ( $p<0.001$ ). Furthermore, in all age groups, as SD increases, the SQL decreases significantly ( $p<0.001$ ).

**Conclusion:** The prevalence of SD among married women of reproductive age is quite high and increases with age. The highest prevalence of SD is observed in women aged 45-49 years. In all age groups, as SD increases, the SQL decreases.

**Keywords:** Married women, reproductive age, sexual dysfunction, sexual quality of life

### ÖZ

**Amaç:** Üreme çağı evli kadınlarında artan yaş, cinsel işlev bozukluğu ve cinsel yaşam kalitesi (CYK) arasındaki ilişkiyi incelemek.

**Yöntemler:** Kesitsel tipte bu çalışma Temmuz 2015 ile Nisan 2016 tarihleri arasında yürütüldü. 18-49 yaşlarındaki (n=1,004) evli kadınlar yaş gruplarına (18-19, n=138; 20-24, n=153; 25-29, n=144; 30-34, n=157; 35-39, n=149; 40-44, n=135; 45-49, n=128 kadın) göre sınıflandırıldı. Veriler bir bilgi formu, Arizona Cinsel Yaşantılar Ölçeği-Kadın Formu (ACYÖ-K) ve CYK Ölçeği-Kadın Formu (CYKÖ-K) kullanılarak toplandı.

**Bulgular:** Kadınların %68'inde cinsel işlev bozukluğu (CİB) saptandı. CİB prevalansının 18-19 (%51,4) ile 45-49 (%85,2) yaş aralığında anlamlı derecede arttığı ( $p<0,001$ ) gözlemlendi. Kırk beş-49 yaş aralığında, CYK en düşük düzeydeydi (%29,7) ( $p<0,001$ ). Evli kadınlarda yaş arttıkça ve 45-49 yaş grubundaki kadınlarda CİB artmış ( $p=0,021$ ), CYK azalmıştır ( $p<0,001$ ). Ayrıca tüm yaş gruplarında CİB arttıkça, CYK önemli ölçüde azalmaktadır ( $p<0,001$ ).

**Sonuç:** Üreme çağındaki evli kadınlar arasında CİB prevalansı oldukça yüksektir ve yaş arttıkça artmaktadır. En yüksek CİB prevalansı 45-49 yaş grubundaki kadınlarda görülür. Tüm yaş gruplarında, CİB arttıkça, kaliteli yaşamın cinsiyeti azalır.

**Anahtar Sözcükler:** Evli kadın, üreme çağı, cinsel işlev bozukluğu, cinsel yaşam kalitesi

**Address for Correspondence:** Hatice KAHYAOĞLU SÜT, Trakya University Health Sciences Institute, Department of Nursing, Edirne, Turkey

**E-mail:** haticesut@yahoo.com **ORCID ID:** orcid.org/0000-0001-8840-6846

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## Introduction

Sexual dysfunction (SD) in women is a multidimensional problem that has a negative influence on holistic well-being (1). It is described as a recurrent or permanent lack of sexual drive and sexual arousal, pain during sexual intercourse, and difficulties or a permanent difficulty in achieving orgasm (2). SD expresses the difficulties that occur during the sexual reaction cycle that prevent the individual from achieving satisfaction during sexual activity (3). SD is a problem that increases with age and affects 30%-50% of women; its prevalence in women of reproductive age is quite high (4,5). Social and cultural restrictions, as well as cultural taboos, make it quite difficult to precisely determine the prevalence of SD among women. Previous studies have reported that the prevalence of SD in women of reproductive age was 52% in Iran, 63% in Nigeria, and 45.6% in Egypt (1,6,7). In Turkey, studies have observed that the prevalence of SD varied between 45.0% and 69.8% (8-10).

Sexual quality of life (SQL) speaks to the existence of a general level of well-being regarding sexuality and sexual satisfaction (11). SD can negatively affect the SQL of married women (12). In married life, which embodies spiritual, emotional, and sexual elements, the happiness of couples is heavily dependent on a healthy relationship and SQL (13). As a negative effect on the SQL of married women, SD can destroy the relationship between partners (14).

Multidimensional, cultural, and ethnic factors that dominate all societies have influenced the prevalence of SD (15). In all societies, the most effective common factor for SD in women is age. Throughout the woman's life, the prevalence of SD increases with age. In Jordan, the prevalence of SD was at its lowest levels among women aged <18 years and at its highest levels among women aged >40 years, with age seen as the most significant risk factor (16). In married Turkish women, studies have also reported increases in the prevalence of SD with age (8,17). In Iran, the prevalence of SD increases with age; SD affects 26% of women in the 20-39 age group and 39% of those aged >50 years (18).

Women's sexual life is influenced by psychological, interpersonal, and physiological factors. In married women of reproductive age, aging associated with sexuality led to a decline in interactions between married couples and an increase in sexual problems (12). Thus, for the general health of marital relationships, married women should share any aging-related SD problems with healthcare professionals and subsequently seek treatment. To the best of our knowledge, no studies have examined the relationship among increasing age, SD, and SQL in married women.

Thus, this study aimed to examine the relationship among increasing age, SD, and SQL of married women of reproductive age.

## Methods

This cross-sectional study was implemented between July 2015 and April 2016 among married women residing in the

city centers of the Edirne and Kirklareli provinces of Turkey. The study population consisted of 89,372 and 77,330 women residing in Edirne and Kirklareli, respectively, all aged 18-49 years (Turkish Statistical Institute, 2014). The sample size was determined as 980 women based on the effect of 21 possible independent factors on the scores of the SQL scale, with a  $R^2$  of 0.03, alpha of 5%, and power of 80%. However, 1004 women were included in the study considering the probability of missing data. As per data from the Turkish Statistical Institute (2014), 1,004 people were weighted according to their city population. The sample included 537 married women from Edirne City and 467 from Kirklareli City. Using a stratified sampling method ( $n=1,004$ ), women were stratified by age groups: 18-19,  $n=138$ ; 20-24,  $n=153$ ; 25-29,  $n=144$ ; 30-34,  $n=157$ ; 35-39,  $n=149$ ; 40-44,  $n=135$ ; 45-49,  $n=128$ . The address of married women in the 18-49 age group was obtained from their neighborhood official, and in the final stage, a simple random sampling method was used. Women who were married, healthy, sexually active, not pregnant, non-menopausal, and willing to participate in the study were included.

Ethical approval for the study was obtained from the Trakya University Scientific Research Ethics Committee. The participants were informed about the study, and they signed the informed consent form accompanying the questionnaire.

Data were collected through a data questionnaire, Arizona Sexual Experiences Scale-Female (ASEX-F) questionnaire, and SQL Questionnaire-Female (SQLQ-F) form. First, volunteer participants were informed about the purpose of the study and how to fill out the data form. Then, they were left alone for approximately 20 min to complete the data questionnaire. The survey questionnaire, which was prepared by the researchers after an examination of the literature, consisted of 11 questions, of which seven were about the women's attributes and four were about their sexual lives (8,13,17,19,20).

ASEX-F: This tool was developed in 2000 by McGahuey et al. (21) for the assessment of SD in women. The ASEX-F was adapted in 2004 to Turkish by Soykan (22). The scale consists of five items and is evaluated using a six-point Likert scale. The scale has the following five subdimensions: sexual drive, arousal, vaginal lubrication, sexual satisfaction, and orgasm. Each scale item is scored from 1 to 6 points (ranging from 1 indicating hyperfunction to 6 presenting hypofunction). The lowest and highest scores are 5 and 30 points, respectively. A low score demonstrates that SD is not evident, whereas a high score demonstrates the presence of SD. According to Soykan, the cutoff score for the scale to detect sexual symptoms was 11 points (22). The Cronbach's alpha value of the scale was 0.90 according to Soykan (22), and in the current study, it was 0.92.

The SQLQ-F was developed in 2005 by Symonds et al. (23), and the Turkish adaptation was performed by Tuğut and Gölbaşı (24) in 2010. The scale consists of 18 items with a six-point Likert scale and can be applied to all women aged >18 years. Women are expected to answer each item by reflecting on their sexual lives over the previous 4 weeks. The score ranges from 18 to 108

points. A high score received from the scale demonstrates that the SQL level is also high. Its Cronbach's alpha value according to Tuğut and Gölbaşı (24) was 0.83. In the present study, its Cronbach's alpha value was 0.94, and the cutoff point of the SQLQ-F total score was >62.2 by using the receiver operating characteristics (ROC) analysis. The area value under the ROC curve (AUC =0.890) was quite high and significant (p<0.001). At this cutoff point, very high predictive values (sensitivity, 93.3%; specificity, 75.4%; positive predictive value, 93.3%; negative predictive value, 70.9%) were obtained (Figure 1). Accordingly, in the present study, those with an SQLQ-F cutoff score >62 were assessed to have a good SQL.

**Statistical Analysis**

In the data analysis, SPSS 20.0 software package (IBM Corp., Armonk, NY, USA) was used. The normality distribution of quantitative data was tested by the one-sample Kolmogorov-Smirnov test. For the comparison of the ASEX-F and SQLQ-F scores according to age categories, a one-way analysis of variance test was used. A chi-square test was used to compare categorical data. Spearman correlation analysis was used to analyze the relationship between ASEX-F and SQLQ-F scores. With the ROC analysis, the cutoff value of the SQLQ-F total average score was found, and according to this cutoff value, the sensitivity, specificity, and positive predictive values were calculated. The results are shown as mean ± standard deviation or number (%), and p<0.05 was accepted as the limit value of significance.

**Results**

The background personal attributes of married women of reproductive age are shown in Table 1. The distribution of the participants according to the age groups was as follows: 13.7%, 18-19 age group; 15.3%, 20-24 age group; 14.3%, 25-29 age group; 15.7%, 30-34 age group; 14.8%, 35-39 age group; 13.5%, 40-44 age group; 12.7%, 45-49 age group. Edirne was

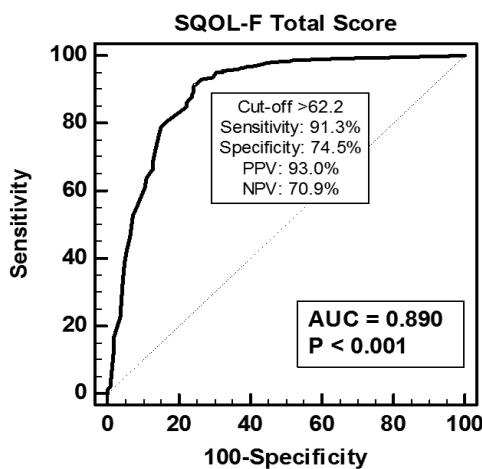
home to 53.4% of the women, and 46.6% of the women resided in Kırklareli. Moreover, 56.8% of the participants had attended high school or obtained tertiary-level education. Additionally, 83.4% of the women were members of nuclear families, 51.6% were employed, and 63.9% had income levels equal to expenditure levels. The duration of their marriages was 10.4±9.2 years (Table 1).

In this study, the attributes of the sexual lives of all age groups (18-19, 20-24, 25-29, 30-34, 35-39, 40-44, and 45-49) were compared. Moreover, 78.1% (n=1004) of the participants were satisfied with their sexual lives; women in the 20-24 age group (86.9%) had the highest level of satisfaction, whereas those in the 45-49 age group (50.8%) had the lowest level of satisfaction. Moreover, 41.8% of the women who most frequently regarded sexuality as a “natural need” belonged to the 20-24 age group, and 28.9% who least frequently regarded sexuality as a “natural need” were part of the 45-49 age group. Women who most

**Table 1. Personal attributes of married women of reproductive age (n=1.004)**

	n	%
Age		
18-19	138	13.7
20-24	153	15.3
25-29	144	14.3
30-34	157	15.7
35-39	149	14.8
40-44	135	13.5
45-49	128	12.7
Place of residence		
Edirne/center	536	53.4
Kırklareli/center	468	46.6
Education level		
Primary and lower	434	43.2
High school and higher	570	56.8
Family structure		
Nuclear family	837	83.4
Extended family	167	16.6
Employment status		
Not working	486	48.4
Working	518	51.6
Income status		
Income level less than expenditure level	230	22.9
Income level equal to expenditure level	642	63.9
Income level higher expenditure level	132	13.1
	Å ± SD	
Marriage year	10.4±9.2	

Mean (Å), SD: Standard deviation



**Figure 1. Quality of sexual life questionnaire-female cutoff score calculation according to the receiver operating characteristics analysis**

frequently regarded sexuality as “the most important bond with their partners” belonged to the 25-29 age group (56.3%), and the women who least frequently regarded sexuality in this way were part of the 45-49 age group (36.7%). Sexuality was regarded as “unnecessary except for reproductive purposes” most frequently by women in the 45-49 age group (18.0%) ( $p < 0.001$ ). The frequency of daily sexual intercourse was highest (24.6%) in the 18-19 age group, whereas women in the 20-24 age group had sexual intercourse 3-4 times a week (64.1%), and those in the 40-44 age group had sexual intercourse 1-2 times a week (53.3%). In addition, 46.1%, 16.4%, and 5.5% of the women in the 45-49 age group had sexual intercourse 1-2 times a week, 1-2 times a month, and 1-2 times every 3 weeks, respectively ( $p < 0.001$ ). In this study, 96.5% of the women in the 25-29 age group most frequently stated that foreplay before sexual intercourse was important, and 75.8% of the women who least frequently expressed the same sentiments belonged to the 45-49 age group ( $p < 0.001$ ) (Table 2).

In this study, the average ASEX-F score of married women of reproductive age was  $13.4 \pm 5.4$ . The ASEX-F average score of women in the 45-49 age group ( $16.6 \pm 5.9$ ) was significantly higher than that of women in the other age groups (18-19, 20-24, 25-29, 30-34, 35-39, and 40-44) ( $p = 0.021$ ). According to ASEX-F, SD was found in 68% of the women. Based on age range, the prevalence of SD was significantly increased from 51.4% in the 18-19 age group [(subsequent age groups: 20-24 age group (51.6%), 25-29 age group (64.6%), 30-34 age group (71.3%), and 40-44 age group (81.5%)] to 85.2% in the 45-49 age group ( $p < 0.001$ ). The average SQLQ-F score of the women was  $74.2 \pm 21.0$ . Following a comparison between age range and the average SQLQ-F score of the women, the average SQLQ-F score of women in the 45-49 age group ( $60.9 \pm 23.7$ ) was significantly lower than that of the women in the other age groups (18-19, 20-24, 25-29, 30-34, 35-39, and 40-44) ( $p < 0.001$ ). According to the average SQLQ-F score, where the cutoff value was  $\leq 62$ , the SQL of 23.3% of the women was poor, and with the cutoff value of  $> 62$ , the SQL of 76.7% of the women was good. In

**Table 2.** Comparison of attributes of women’s sexual lives according to age group (n = 1004)

	Age groups								p*
	18-49 (n=1004)	18-19 (n=138)	20-24 (n=153)	25-29 (n=144)	30-34 (n=157)	35-39 (n=149)	40-44 (n=135)	45-49 (n=128)	
	n %	n %	n %	n %	n %	n %	n %	n %	
<b>Satisfaction from sexuality</b>									
Yes	784 (78.1)	111 (80.4)	133 (86.9)	124 (86.1)	126 (80.3)	116 (77.9)	109 (80.7)	65 (50.8)	<0.001
No	220 (21.9)	27 (19.6)	20 (13.1)	20 (13.9)	31 (19.7)	33 (22.1)	26 (19.3)	63 (49.2)	
<b>Viewpoint on sexuality</b>									
Natural need	355 (35.4)	42 (30.4)	64 (41.8)	53 (36.8)	61 (38.9)	50 (33.6)	48 (35.6)	37 (28.9)	<0.001
The most important bond between me and my partner	486 (48.4)	68 (49.3)	73 (47.7)	81 (56.3)	87 (55.4)	68 (45.6)	63 (45.9)	47 (36.7)	
Unnecessary outside reproductive purposes	82 (8.2)	5 (3.6)	8 (5.2)	5 (3.5)	4 (2.5)	20 (13.4)	17 (12.6)	23 (18.0)	
Shame/sin	48 (4.8)	20 (14.5)	5 (3.3)	5 (3.5)	2 (1.3)	4 (2.7)	2 (1.5)	10 (7.8)	
I detest it	25 (2.5)	3 (2.2)	2 (1.3)	0 (0.0)	2 (1.3)	7 (4.7)	3 (2.2)	8 (6.3)	
It has no place in my life	8 (0.8)	0 (0.0)	1 (0.7)	0 (0.0)	1 (0.6)	0 (0.0)	3 (2.2)	3 (2.3)	
<b>Sexual intercourse frequency</b>									
Every day	82 (8.2)	34 (24.6)	22 (14.4)	9 (6.3)	6 (3.8)	5 (3.4)	3 (2.2)	3 (2.3)	<0.001
3-4 times a week	434 (43.2)	84 (60.9)	98 (64.1)	70 (48.6)	76 (48.4)	57 (38.3)	29 (21.5)	20 (15.6)	
1-2 times a week	336 (33.5)	15 (10.9)	21 (13.7)	54 (37.5)	55 (35.0)	60 (40.3)	72 (53.3)	59 (46.1)	
1-2 times every 2 weeks	72 (7.2)	2 (1.4)	7 (4.6)	5 (3.5)	10 (6.4)	9 (6.0)	21 (15.6)	18 (14.1)	
1-2 times every 3 weeks	27 (2.7)	3 (2.2)	2 (1.3)	1 (0.7)	4 (2.5)	8 (5.4)	2 (1.5)	7 (5.5)	
1-2 times a month	53 (5.3)	0 (0.0)	3 (2.0)	5 (3.5)	6 (3.8)	10 (6.7)	8 (5.9)	21 (16.4)	
<b>Importance of foreplay before sexual intercourse</b>									
Yes	896 (89.2)	128 (92.8)	143 (93.5)	139 (96.5)	142 (90.4)	133 (89.3)	113 (83.7)	98 (75.8)	<0.001
No	108 (10.8)	10 (7.2)	10 (6.5)	5 (3.5)	15 (9.6)	16 (10.7)	22 (16.3)	30 (23.4)	
*Pearson chi-square test									

the 25-29 age group (6.9%), the SQL was at its lowest level. In the 45-49 age group (29.7%), the decline in the SQL was at its highest ( $p < 0.001$ ) (Table 3).

In this study, a significant negative relationship was detected between the ASEX-F scores for all age groups (18-19, 20-24, 25-29, 30-34, 35-39, 40-44, and 45-49); their average scores for the subdimensions sexual drive, arousal, vaginal lubrication, sexual satisfaction, and orgasm; and their SQLQ-F score average ( $p < 0.001$ ) (Table 4).

**Discussion**

In this study, we found that the prevalence of SD among married women of reproductive age is high; in all age groups, the prevalence of SD increases as age increases, and as the level of SD increases, the SQL decreases.

This study examined the relationships between increasing age, SD, and SQL in married women of reproductive age. Of the women, 68% reported SD (ASEX-F score  $\geq 11$ ). Significantly, an increased prevalence of SD was observed between those in the

18-19 (51.4%) and 45-49 (85.2%) age groups. An examination of similar studies carried out in different regions in Turkey showed that SD was reported by Ege et al. (25) in 45.6% of women, Öksüz and Malhan (26) in 48.3%, Cayan et al. (8) in 46.9%, Demir et al. (27) in 28.6%, Ozturk et al. (9) in 69.8%, Artune-Ulkumen et al. (28) in 36.8%, and Yilmaz et al. (10) in 45.0% of women. The prevalence of SD among women of reproductive age was 52% in an analysis undertaken in Iran (6). In Nigeria, Fajewonyomi et al. (7) found that 63% of the women of reproductive age had SD. In Egypt, Gabr et al. (29) found that 30% of fertile women had SD, and Mustafaa et al. (1) reported 45.6%. Mishra et al. (30) found that 55.5% of fertile Indian women had SD. In studies based on age range, Özerdoğan et al. (31) found SD in 53.9% of Turkish women in the 40-44 age group and 65.8% in the 45-49 age group. Oksuz and Malhan. (32) found SD in 41% of Turkish women in the 18-30 age group, 53.1% in the 31-45 age group, and 67.9% in the 46-55 age group. Aslan et al. (17) found an age-related increase in the prevalence of SD in Turkish women, with 22%, 39.7%, and 50.2% in the 20-29, 30-39, and 40-49 age groups, respectively. Cayan et al. (8) reported an increase in the prevalence of SD

**Table 3.** Comparison of SD and SQL prevalence and ASEX-F and SQLQ-F score averages by age groups (n=1,004)

Age	ASEX-F	SD	SQLQ-F	SQL poor
	Å ± SD	Prevalence (%)	Å ± SD	Prevalence (%)
18-19	11.1±4.6	51.4	78.9±20.5	11.6
20-24	11.3±4.7	51.6	79.4±18.5	10.5
25-29	12.6±4.9	64.6	78.8±17.7	6.9
30-34	13.4±4.9	71.3	76.3±18.7	9.6
35-39	14.1±5.8	73.2	71.9±22.5	16.8
40-44	14.6±5.2	81.5	71.4±19.7	13.3
45-49	16.6±5.9	85.2	60.9±23.7	29.7
Total	13.4±5.4	68.0	74.2±21.0	23.3
p	0.021*	<0.001**	<0.001*	<0.001**

\*One-way ANOVA, \*\*Pearson chi-square test, mean (Å), SD: Standard deviation  
ASEX-F: Arizona Sexual Experiences Scale-Female, SQLQ-F: Quality of Sexual Life Questionnaire-Female

**Table 4.** Relation between the ASEX-F total and subdimension score averages and SQLQ-F score averages according to age groups

Age groups	ASEX-F total		Sexual drive	Arousal	Vaginal lubrication	Sexual satisfaction	Orgasm	
	r							
SQLQ-F total	18-19	r	-0.613*	-0.576*	-0.562*	-0.468*	-0.524*	-0.601*
	20-24	r	-0.507*	-0.519*	-0.370*	-0.334*	-0.447*	-0.475*
	25-29	r	-0.460*	-0.401*	-0.338*	-0.362*	-0.408*	-0.355*
	30-34	r	-0.539*	-0.519*	-0.422*	-0.486*	-0.467*	-0.458*
	35-39	r	-0.670*	-0.600*	-0.569*	-0.535*	-0.596*	-0.668*
	40-44	r	-0.628*	-0.542*	-0.480*	-0.569*	-0.452*	-0.603*
	45-49	r	-0.721*	-0.593*	-0.595*	-0.651*	-0.583*	-0.717*

\*Spearman correlation analysis,  $p < 0.001$  for all  
ASEX-F: Arizona Sexual Experiences Scale-Female, SQLQ-F: Quality of Sexual Life Questionnaire-Female

with age in Turkish women, i.e., 21.7% in the 18-27 age group and 92.9% in the 58-67 age group. In Iran, the prevalence of SD in women was reported to increase with age, affecting 26% of women in the 20-39 age range and 39% in those aged >50 years (18). In Jordan, Maita et al. (16) found that the prevalence of SD was at its lowest level among those aged <18 years and the highest level in women aged >40 years. Mishra et al. (30) reported that SD was more common in fertile Indian women aged 26-30 and >41 years. The prevalence of SD is quite high in married women of reproductive age, which increases with age. In the present study, 78.1% of the women stated that they were satisfied with their sexual life, and the possible reason for this high satisfaction rate is that women are unwilling to share their sexual problems because of cultural reasons.

In the present study, 76.7% and 23.3% of married women of reproductive age had high and poor SQL, respectively. Tuncer et al. (33), Taskin Yilmaz et al. (34), Dogan et al. (20), and Yarali and Hacalioglu. (35) reported that married Turkish women had good SQL (21). Strizzi et al. (36) found that healthy women had good SQL. Moreover, SQL was good in most married and healthy women of reproductive age. In the present study, the SQL varied according to the age group of married women of reproductive age. Those (29.7%) in the 45-49 age group had poor SQL. Dogan et al. (20) reported a positive relationship between happiness, life satisfaction, and SQL in married Turkish women. They noted that SQL is an indicator of the level of satisfaction that an individual receives from sex (21). In the present study, the 20-24 age group (86.9%) had the highest satisfaction level from sex, and the 45-49 age group (50.8%) presented the lowest level of satisfaction. The incidence of hypoactive sexual desire disorder may increase with advancing age; therefore, women can experience sexual interest and arousal disorder. In women aged 45-49 years, the level of satisfaction derived from sex decreases, and their views related to sexuality became increasingly negative.

In the present study, the level of SD increased, whereas SQL decreased in married women of reproductive age and women aged 45-49 years. Moreover, in all age groups, as SD increases, the SQL decreases, and a significant relationship was found between the two. In their analysis of married women, Sahin et al. found that SD increased with age and women aged  $\geq 45$  years had a higher level of SD. In addition, SD is more common in those who had been married between 2 and 9 years (37). Moreover, SD increases with the age of the married Egyptian women and with the age of her partner (1). Again, in married Egyptian women, age was found as a risk factor for SD (38). In Chinese women, a significant relationship was found between age and SD, with SD becoming more frequent with age (39); a decrease in vaginal lubrication and an increase in the frequency of pain during intercourse were also reported (40). Lin et al. (41) found a significant relationship between age and SD, and as age increases, the frequency of SD increases, which negatively affects SQL. Likewise, Shin et al. (42) reported a significant relationship between age and SD, and as age increases, there is a concomitant decrease in vaginal lubrication and an increase in

the frequency of pain during sexual intercourse, with SD levels increasing overall and negatively affecting SQL. Sathyanarayana Rao et al. (43) reported an increase in SD in women aged 31-50 years. Fajewonyomi et al. (7) reported that SD most frequently occurred in Nigerian women aged 26-30 years. Zhang et al. (44) found that the increase in sexual symptoms was most common in married women in the 41-49 age group. Regarding studies among Turkish women aged >49 years, Özerdoğan et al. (31) reported that SD was present in 78% of women aged  $\geq 50$  years and that there was an increase in the SD/age ratio (32). Kömürçü and İşbilen (45) noted that SD is more widespread in women aged  $\geq 50$  years than in other age groups. According to Mishra et al. (30), SD was more common in fertile Indian women aged 26-30 years and aged >41 years, and those with sexual desire dysfunction had severe SD (31). Oniz et al. (46) found that women aged 19-51 years reported an increased number of symptoms if they had been married for >11 years. According to Haghi et al. (12), marital closeness in married Iranian women aged 20-35 years was closely related to SQL and SD. In line with the literature, SD also increases with an increase in age, and as sexual symptoms increase, SQL decreases. Compared with other age groups, women in the 45-49 age group exhibited an increase in hormonal (in women, androgen hormone level decreases with increasing age, which results in decreased sexual interest and arousal) and physical changes due to menopause, decline in sexual closeness between partners, and inability to share sexual problems because of cultural reasons, which resulted in a more severe SD and a poorer SQL.

### Study Limitation

The strengths of this study were related to its inclusion of healthy, sexually active, non-pregnant, non-menopausal, and married women aged 18-49 years. Women were selected by using a stratified sampling method. Women were visited in their homes by the same researcher. However, the study has limited generalizability because it was only conducted in two cities in Turkey.

### Conclusion

The prevalence of SD among married women of reproductive age is quite high and increases with age. SQL was observed to be poorest in women aged 45-49 years. In all age groups, as SD increases, SQL decreases. In women of reproductive age, diagnosing and treating sexual problems through family health policies is important to maintain the holistic well-being of women and mitigate the likelihood of marital conflicts.

### Ethics

**Ethics Committee Approval:** Ethical approval for the study was obtained from the Trakya University Scientific Research Ethics Committee.

**Informed Consent:** The participants were informed about the study, and they signed the informed consent form accompanying the questionnaire.

**Peer-review:** Externally peer reviewed.

### Authorship Contributions

Concept: E.Z., H.K.S., Design: E.Z., H.K.S., Data Collection or Processing: E.Z., H.K.S., Analysis or Interpretation: E.Z., H.K.S., Literature Search: E.Z., H.K.S., Writing: E.Z., H.K.S.

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