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Quality of Sexual Life, Well-Being, Dyspareunia and Related Factors in Women in Postpartum Period: A Cross-Sectional Study of the North West of Türkiye

Doğum Sonrası Dönemde Kadınlarda Cinsel Yaşam Kalitesi, İyi Oluş, Disparoni ve İlişkili Faktörler: Türkiye'nin Kuzey Batısında Kesitsel Bir Çalışma

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ABSTRACT Objective: The study was carried out to determine the level of sexual life quality, well-being, dyspareunia and related factors in postpartum women. **Material and Methods:** The planned cross-sectional study was conducted in a university hospital in the Marmara Region with 432 women between October 2019 and April 2020. Data; the introductory information form was collected with the World Health Organization-5 Well-Being Index and the Sexual Life Quality Scale-Women Questionnaire. The dependent variables of the study are postpartum dyspareunia, well-being and quality of sexual life. **Results:** In 36.3% of the participants have dyspareunia and 38.4% of the participants are depressed and sexual quality of life score is 44.04±5.44. In multivariate analysis, dyspareunia risk was determined to increase due to the states such as having high school education, 3-4 years of marriage period, having chronic disease in pregnancy, not finding their partner attractive, experiencing dyspareunia before and during pregnancy, having depressive symptoms ($p<0.05$). Depressive symptoms; being in the 18-29 age group, having education at primary level, having a multipara pregnancy, having chronic disease during pregnancy, having a cesarean delivery, having a curettage, not perceiving the spouse attractive, during pregnancy and after birth increased the state of experiencing dyspareunia ($p<0.05$). **Conclusion:** More than one-third of the participants have poor mood, have postpartum dyspareunia. In the light of these results, it is suggested that healthcare professionals should evaluate women as a whole in the postpartum period, but should provide more specific training and counselling services to risky groups.

Keywords: Sexual quality of life; dyspareunia; well-being; postpartum

ÖZET Amaç: Araştırma, kadınlarda doğum sonrası cinsel yaşam kalitesi, iyilik hâli, disparoni ve ilişkili faktörlerin düzeyini belirlemek amacıyla yapılmıştır. **Gereç ve Yöntemler:** Kesitsel tipte planlanan çalışma, Marmara Bölgesi'ndeki bir üniversite hastanesinde Ekim 2019-Nisan 2020 tarihleri arasında 432 kadın ile yapılmıştır. Veriler; tanıtıcı bilgi formu, Dünya Sağlık Örgütü-5 İyilik Hali İndeksi ve Cinsel Yaşam Kalitesi Ölçeği-Kadın Soru Formu ile toplanmıştır. Araştırmanın bağımlı değişkenleri doğum sonrası disparoni, iyilik hâli ve cinsel yaşam kalitesidir. **Bulgular:** Katılımcıların %36,3'ünde disparoni, %38,4'ünde depresyon görülmüş olup, cinsel yaşam kalitesi puanı 44,04±5,44'tür. Çok değişkenli analizde, lise mezunu olmak, 3-4 yıllık evlilik süresi, gebelikte kronik hastalık bulunması, eşini çekici bulmama, gebelik öncesi ve gebelikte disparoni yaşama gibi durumlara bağlı olarak disparoni riskinin arttığı belirlendi ($p<0,05$). Gebelik ve doğum sonrası döneminde disparoni yaşayan kadınlardan; 18-29 yaş grubunda, ilköğretim mezunu, multipar, gebeliğinde kronik bir hastalığı olan, sezaryen ile doğum yapan, küretaj öyküsü olan ve eşini çekici görmeyenlerde depresif belirti görülme riskinin arttığı tespit edilmiştir ($p<0,05$). **Sonuç:** Katılımcıların doğum sonrası 1/3'ünden fazlasında depresyon ve disparoni tespit edilmiştir. Bu sonuçlar ışığında sağlık profesyonellerinin doğum sonrası dönemde kadınları bir bütün olarak değerlendirmeleri, ancak riskli gruplara daha spesifik eğitim ve danışmanlık hizmetleri vermeleri önerilmektedir.

Anahtar Kelimeler: Cinsel yaşam kalitesi; disparoni; iyilik hâli; postpartum

Disorders occurring in the cycle of sexual reaction as a result of anatomical, physiological or psychological factors and negatively affecting sexual performance are called sexual dysfunction.[1] Dyspareunia is one of the most important problems in the genital area during penile-vaginal intercourse that

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negatively affects the permanent or recurrent women's health.[2] Although it is difficult to determine the epidemiology of dyspareunia due to the fact that it is not reported by individuals for reasons such as the cultural structure of the society, taboos, and patriarchal structure, it is reported in the literature that approximately 10-49% of fertile women have dyspareunia.[3-8] Factors affecting postpartum dyspareunia in the literature are listed as perineal trauma, type of delivery, vaginal infection, breastfeeding, time to start sexual intercourse; ethnicity, caesarean birth incision and wound healing in episiotomy are the history of maternal age, parity, pre-pregnancy and dyspareunia in pregnancy.[1,6,7,9-11]

One of the important issues in the postpartum period is the quality of sexual life. The quality of sexual life, defined as the subjective perception of the individual's positive and negative aspects of sexual intercourse, is a concept that can negatively affect the mental state.[12] Sexual quality of life scores in the literature range from 22.27-85.5.[13-17] Socio-demographic characteristics in studies in the quality of sexual life literature varies depending on the quality of life.[15,16,18-21]

One of the conditions that should be evaluated in the postpartum period is the well-being of women. Women may change their physical and mental health and quality of life in the postpartum period while trying to adapt to maternity, spouse and employee roles. In the literature, it is seen that approximately one third of women show depressive symptoms and are associated with social determinants in the postpartum period.[22] According to the World Health Organization (WHO), the postpartum period is an appropriate period for counselling about sexual life and determining women's need.[23] Although there are studies concerning the effect of sexual problems in women on sexual life quality and mental state in the postpartum period in the literature, it is seen that studies evaluating dyspareunia, quality of life and well-being together are limited. Another issue is that perception of sexuality as a taboo in Turkish society, lack of formal sexual education, legends about sexuality and the importance of virginity lead to limited information about problems in postpartum period.[24] To know the postpartum dyspareunia level of women and related epidemiology will provide an opportunity to plan and deliver training and care. This study was carried out to determine the level of sexual life quality, well-being, experiencing dyspareunia and related factors in women in the postpartum period.

RESEARCH QUESTION

Is there a relationship between sexual quality of life, well-being and dyspareunia in women in the postpartum period?

MATERIAL AND METHODS

STUDY DESIGN

This cross-sectional study was carried out to determine the state of dyspareunia, level of sexual life, well-being and related factors in postpartum women.

SAMPLE

This research was conducted in the maternity clinic of a university hospital in the Marmara Region between October 2019 and April 2020. The universe of the study consists of 4,013 women who have given birth in the last year. Sample size, in G*power 3.1.9.2 (Computer Soft., Düsseldorf, Almanya) program, in the level of 80% power, 5% Type I error, R^2: 0.55, 408 calculations, 490 people who meet the admission criteria have been reached. Women who were out of the scope of the study 28 women could not be reached, 25 women did not want to meet, 2 women died, 3 women moved out of the city. Inclusion criteria for the research; being 18 years and older, having a phone, volunteering to participate in the research, having a healthy baby, being a woman with a sexual life, starting sexual intercourse after childbirth, not having any mental illness diagnosed by the physician, not interfering with her birth by vacuum.

DATA COLLECTION

The data of the research were collected in 2 stages by the researchers. In the first stage, a personal information form through a face to face interview was applied to 490 women meeting the criteria of postnatal research in the birth service of a university hospital in the Marmara Region.

Women were made explanations on how to complete the scales they will use. In the second stage,

with postpartum women, 432 (88.1%) of the women in the first meeting in the sixth week continued their participation in the research. Telephone interviews were made with these people as of the 6th week of postpartum and experiencing postpartum dyspareunia; WHO-5 Well-Being Index and Sexual Quality of Life Scale (SQLS-F) were applied. The study was conducted in accordance with the 2008 principles of the Declaration of Helsinki.

DATA COLLECTION TOOLS

Personal Information Form: In collecting the data of the research; it consists of 14 questions about socio-demographic characteristics such as age, education, income, and marriage, fertility characteristics, and sexual life characteristics created by researchers in line with the literature.

WHO-5 Well-Being Index: WHO-5 is used for detecting depression in the general population. It consists of 5 questions adapted to Turkish by Eser et al. in 2019, evaluating the emotional well-being of the previous 2 weeks. This is a scale from 1 to 5 points on each question.[25] The lowest score (0) that can be obtained from the scale indicates the lack of well-being, the highest score (25) shows the highest well-being. In the scale, 13 points are the cut-off point. If the score obtained is less than 13, major depression inventory should be applied to the person. While the WHO-5 Index Cronbach alpha coefficient is 0.85 in Eser et al. study, it is 0.95 in our study.[25]

Sexual Quality of Life Scale-Women's Question Form (SQLS-F): SQLS-F was developed (2005) by Symonds et al. and was adapted to Turkish by in 2009.[26,27] The scale is the one which is 6-point Likert type and consists of 18 items and the lowest 18 and the highest 108 points can be obtained. It is a scale, in which the quality of sexual life increases as the score increases. In the study of Tuğut and Gölbaşı, while the Cronbach alpha coefficient was 0.83, it was found to be 0.88 in our study.[27]

STATISTICAL ANALYSIS

In the study, descriptive findings were presented with the number, percentage mean. Normality assumption was determined by taking the Shapiro-Wilk test and kurtosis skewness value±1.5 into consideration. The relationship between dependent variables and independent variables was evaluated by univariate and multivariate analysis. In the univariate analysis, variables with a p value <0.05 were included in the model. A multivariate linear regression analysis was used to investigate the relationship between independent variables and dyspareunia, WHO-5 and sexual quality of life score. The explanatory value of the models was evaluated using the adjusted R square (Adj. R^2). The analysis was performed using the SPSS, version 25.0 (SPSS Inc., Chicago, IL, USA).

ETHICAL CONSIDERATIONS

The study was conducted in accordance with the Principles of the Declaration of Helsinki and the consent of the women was obtained for the study. For this study, Clinical Researches Ethics Committee (date: August 28, 2019, no: 2019/113) approval has been obtained.

RESULTS

85.4% of the participants are between the ages of 18-29. 37.3% of them are high school graduates. 46.0% of income is equal to their expense. 51.9% of them have been married for 5 years or more. 6.9% of women have chronic disease during pregnancy, 72.5% of them are multiparous, 53.2% of them have been delivered by cesarean, 15.5% of them perceive their level of knowledge about sexuality insufficient and 85% of them find their spouse attractive. It was determined that in the postpartum period, 65.5% of women started postpartum sexual intercourse 8 weeks later, 21.3% had dyspareunia before pregnancy, 27.3% during pregnancy and 36.3% after delivery. In the study, 38.4% of women were people with depressive symptoms, and the mean score of WHO-5 Well-Being Index was found to be 13.81±3.22, and the mean score of SQLS-F was 44.04±5.44 (Table 1).

Having high school education [odds ratio (OR) 3.35, 95% confidence interval (CI) 1.40-8.03], 3-4 years of marriage (OR 7.14, 95% CI 2.74-18.56), chronic disease during pregnancy (OR 9.03, 95% CI 2.40-33.89), having a curettage (OR 26.51, 95% CI 9.08-38.39), not finding her partner attractive (OR 4.11, 95% CI 1.46-11.55), having dyspareunia before pregnancy (OR 38.31, 95% CI 10.80-46.84), dyspareunia during pregnancy, (OR 17.99, 95% CI 8.75-

TABLE 1: Descriptive features of the research group (n=432).

Variables	n (%)
Age	
18-29	369 (85.4)
30+	63 (14.6)
Education	
Primary	154 (35.6)
High school	161 (37.3)
University	117 (27.1)
Income	
Less income than expense	190 (44.0)
Income equal to expense	199 (46.0)
Income over expense	43 (10.0)
Duration of marriage	
1-2 years	101 (23.3)
3-4 years	107 (24.8)
5+	224 (51.9)
Parity	
Primipar	119 (27.5)
Multipar	313 (72.5)
Chronic disease in pregnancy	
Yes	30 (6.9)
No	402 (93.1)
Methods of delivery	
Normal delivery	202 (46.8)
Caesarean delivery	230 (53.2)
Curettage	
Yes	69 (16.0)
No	363 (84.0)
Knowledge perception about sexuality	
Sufficient	67 (15.5)
Insufficient	365 (84.5)
Spouse perception	
Attractive	367 (85.0)
Undecided	65 (15.0)
Time to start sexual intercourse after birth	
4-5 weeks later	149 (34.5)
8 weeks and more	283 (65.5)
Dyspareunia before pregnancy	
Yes	92 (21.3)
No	340 (78.7)
Dyspareunia during pregnancy	
Yes	118 (27.3)
No	314 (72.7)
Postpartum period dyspareunia	
Yes	157 (36.3)
No	275 (63.7)
WHO-5	
Normal	266 (61.4)
Depressive	166 (38.4)
SQLS-F $\bar{X}$±SD	44.04±5.44
WHO-5 $\bar{X}$±SD	13.81±3.22

WHO-5: World Health Organization-5 Well-Being Index; SQLS-F: Sexual Quality of Life Scale-Women's Question Form; SD: Standard deviation.

36.97) and having depressive symptoms (OR 3.72, 95% CI 2.02-6.83) according to WHO-5 significantly increase the risk of dyspareunia in multivariate analysis ($p<0.001$) (Table 2).

Table 3 shows the results of univariate and multivariate analysis between the independent variables and the WHO-5 Well-Being Index. Being in the 30+ age group (95% CI 1.14; 1.22), having education at primary level (95% CI 1.11; 1.80), having multipatal pregnancy (95% CI 1.28; 3.06), having chronic disease during pregnancy (95% CI 1.43; 2.90), cesarean delivery (95% CI 1.11; 2.83), curettage (95% CI 1.72; 3.48), not perceiving the spouse as attractive (95% CI 1.13; 3.35), experiencing dyspareunia during pregnancy (95% CI 1.19; 2.51), having dyspareunia after birth (95% CI 2.08; 3.58) increases the risk of depressive emotional status in multivariate analysis.

In Table 4, univariate and multivariate analysis results are seen between SQLS-F and independent variables. SQLS-F score in multivariate analysis; is low in those who have been married for 3-4 years (95% CI 1.80; 2.50), those with chronic disease during pregnancy (95% CI 1.85; 4.41), those with curettage (95% CI 2.86; 5.85), those who do not have knowledge about sexuality (95% CI 2.86; 5.85), those who had dyspareunia before pregnancy (95% CI 1.34; 2.07), those who did not find their partner attractive (95% CI 2.06; 4.79) and those who had dyspareunia after birth (95% CI 2.15; 4.56).

DISCUSSION

This study conducted in Türkiye's Balıkesir Province in North West area and is the first one in which dyspareunia, the quality of sexual life and well-being are evaluated.

In our study, it was determined that 21.3% of women in postpartum period had dyspareunia before pregnancy, 27.3% during pregnancy and 36.3% after delivery. The frequency of dyspareunia in the postpartum period ranges from 24 to 58.3% in the studies in the literature.[1,7,17,28] It is similar to the international literature and the relative difference may depend on the methodological differences of the researches and the different socio-cultural characteristics. Indeed, in a study conducted by Üstgörül and Yanikkerem in

TABLE 2: Socio-demographic characteristics, postpartum dyspareunia according to pregnancy-related features (n=432).

	Dyspareunia		Statistical analysis					
	Yes	No	Univariate		Multivariate			
Variables	n (%)	n (%)	χ^2	p value	B	p value	OR	95% CI
Age								
18-29	224 (60.7)	145 (39.3)	9.536	0.002	0.036	0.446	1.03	0.94; 1.13
30+	51 (81.0)	12 (19.0)						
Education								
Primary	119 (77.3)	35 (22.7)			1.0			
High school	98 (60.9)	63 (39.1)	22.914	0.000	1.210	0.007	3.35	1.40; 8.03
University	58 (49.6)	59 (50.4)			0.016	0.969	1.01	0.45; 2.29
Income								
Less income than expense	147 (77.4)	43 (22.6)			1.0			
Income equal to expense	97 (48.7)	102 (51.3)	35.894	0.000	-0.481	0.155	0.61	0.32; 1.20
Income over expense	31 (72.1)	12 (27.9)			-0.620	0.231	0.53	0.19; 1.48
Duration of marriage								
1-2 years	59 (58.4)	42 (41.6)			0.501	0.292	1.65	0.65; 4.19
3-4 years	57 (53.3)	50 (46.7)	11.384	0.003	1.966	0.000	7.14	2.74; 18.56
5+	159 (71.0)	65 (29.0)			1.0			
Parity								
Primipar	53 (44.5)	66 (55.5)	25.952	0.000	0.329			
Multipar	222 (70.9)	91 (29.1)			1.0	0.127	1.39	0.91; 2.12
Chronic disease during pregnancy								
Yes	5 (16.7)	25 (83.3)	30.771	0.000	2.201	0.001	9.03	2.40; 33.89
No	270 (67.2)	132 (32.8)			1.0			
Methods of delivery								
Normal delivery	129 (63.9)	73 (36.1)	0.007	0.934				
Caesarean delivery	146 (63.5)	84 (36.5)						
Curettage								
Yes	218 (60.1)	145 (39.9)	12.748	0.000	3.278			
No	57 (82.6)	12 (17.4)			1.0	0.000	26.51	9.08; 38.39
Knowledge perception about sexuality								
Sufficient	41 (61.2)	26 (38.8)	0.208	0.648				
Insufficient	234 (64.1)	131 (35.9)						
Spouse perception								
Attractive	242 (65.9)	125 (34.1)	5.494	0.019	1.0			
Undecided	33 (50.8)	32 (49.2)			1.414	0.007	4.11	1.46; 11.55
Time to start sexual intercourse after birth								
4 weeks later	49 (61.3)	31 (38.8)	0.197	0.657				
8 weeks later	181 (64.0)	102 (36.0)						
Dyspareunia before pregnancy								
Yes	20 (21.7)	72 (78.3)	88.784	0.000	3.646			
No	255 (75.0)	85 (25.0)			1.0	0.000	38.31	10.80; 46.84
Dyspareunia during pregnancy								
Yes	242 (77.1)	72 (22.9)	89.391	0.000	2.890			
No	33 (28.0)	85 (72.0)			1.0	0.000	17.99	8.75; 36.97
WHO-5								
Normal	147 (76.2)	46 (23.8)	23.593	0.000	1.0			
Depressive	128 (53.6)	111 (46.4)			1.315	0.000	3.72	2.02; 6.83

Nagelkerke R^2: 0.55; χ^2: 24.750; p: 0.002; WHO-5: World Health Organization-5 Well-Being Index; OR: Odds ratio; CI: Confidence interval.

TABLE 3: Socio-demographic characteristics, WHO-5 according to the features related to pregnancy (n=432).

			Statistical analysis				
		WHO-5	Univariate		Multivariate		
Variables	**n**	**$\bar{X}$±SD**	**t/F**	**p value**	**B**	**95% CI**	**p value**
Age*							
18-29	63	14.15±4.25	3.184	0.002	1.132	1.14; 1.22	0.005
30+	369	12.57±3.54					
Education**							
Primary[a]	161	14.09±4.33	29.868	0.000	1.433	1.11; 1.80	0.000
High school[b]	117	10.84±2.04					
University[c]	154	12.94±3.30	a>c>b				
Income**							
Less income than expense[a]	190	13.55±4.06	9.828	0.000	0.279	-0.07; 0.63	0.119
Income equal to expense[b]	199	13.34±3.37					
Income over expense[c]	43	15.97±3.19	a=b<c				
Duration of marriage**							
1-2 years[a]	101	11.08±3.69	48.224	0.000	0.483	-0.15; 1.12	0.138
3-4 years[b]	107	11.23±1.85					
5+[c]	224	14.32±4.17	a=b<c				
Parity*							
Primipar	119	13.54±3.88	-9.136	0.000	2.172	1.28; 3.06	0.000
Multipar	313	10.84±2.15					
Chronic disease in pregnancy*							
Yes	30	12.43±3.54	0.559	0.000	1.665	1.43; 2.90	0.008
No	402	12.83±3.70					
Methods of delivery*							
Normal delivery	202	13.79±3.99	5.301	0.000	1.954	1.11; 2.83	0.000
Caesarean delivery	230	11.93±3.17					
Curettage*							
Yes	69	11.20±2.36	5.473	0.000	2.607	1.72; 3.48	0.000
No	363	13.10±3.82					
Knowledge perception about sexuality*							
Sufficient	67	13.25±4.63	0.895	0.373			
Insufficient	365	12.72±3.49					
Spouse perception*							
Attractive	367	12.60±3.57	-2.369	0.020	2.248	1.13; 3.35	0.000
Undecided	65	13.90±4.15					
Time to start sexual intercourse after birth*							
4 weeks later	80	13.23±4.40	-0.225	0.822			
8 weeks later	283	13.11±3.60					
Dyspareunia before pregnancy*							
Yes	92	11.67±3.32	3.571	0.000	0.680	-0.40; 1.76	0.217
No	340	13.10±3.73					
Dyspareunia in pregnancy*							
Yes	118	11.22±2.88	6.351	0.000	1.554	1.19; 2.51	0.002
No	314	13.39±3.79					
Dyspareunia after birth*							
Yes	157	11.08±2.58	8.642	0.000	2.837	2.08; 3.58	0.000
No	275	13.78±3.87					

R^2: 0.42; Adj. R2: 0.40; F: 25.493.265; p: 0.000; *Student's t test, **One-way analysis of variance (post hoc: Tukey); WHO-5: World Health Organization-5 Well-Being Index; SD: Standard deviation; CI: Confidence interval.

TABLE 4: Socio-demographic characteristics, sexual quality of life according to the features related to pregnancy (n=432).

		Sexual Quality of Life	Statistical analysis				
			Univariate		Multivariate		
Variables	**n**	**X̄±SD**	**t/F**	**p value**	**B**	**95% CI**	**p value**
Age*							
18-29	369	43.41±4.93	4.890	0.000	0.788	-0.74; 2.31	0.312
30+	63	47.74±6.72					
Education**							
Primary[a]	154	44.81±5.43	6.786	0.001	-0.313	-0.88; 0.26	0.284
High school[b]	161	44.41±6.07					
University[c]	117	42.50±4.09	a=c>b				
Income**							
Less income than expense[a]	190	45.06±5.65	6.452	0.002	-0.379	-0.93; 0.17	0.180
Income equal to expense[b]	199	42.63±0.93					
Income over expenses[c]	43	43.37±5.64	a=b<c				
Duration of marriage**							
1-2 years[a]	101	44.04±5.44	16.878	0.000	1.654	1.80; 2.50	0.000
3-4 years[b]	107	41.48±3.37					
5+[c]	224	44.86±6.36	a=c>b				
Parity*							
Primipar	119	43.58±5.03	-1.130	0.260			
Multipar	313	44.21±5.58					
Chronic disease in pregnancy*							
Yes	30	39.81±4.22	5.567	0.000	2.635	1.85; 4.41	0.000
No	402	44.35±5.39					
Methods of delivery*							
Normal delivery	202	44.27±6.18	0.812	0.417			
Caesarean delivery	230	43.84±4.70					
Curettage*							
Yes	69	43.66±5.67	-4.787	0.000	4.360	2.86; 5.85	0.000
No	363	46.05±3.33					
Knowledge perception about sexuality*							
Sufficient	67	48.80±6.14	7.119	0.000	6.951	4.96; 8.93	0.000
Insufficient	365	43.16±4.82					
Spouse perception*							
Attractive	367	44.38±5.05	2.469	0.016	1.813	1.25; 3.37	0.023
Undecided	65	42.13±7.01					
Time to start sexual intercourse after birth*							
4 weeks later	80	47.15±5.46	-6.537	0.000	3.425	2.06; 4.79	0.000
8 weeks later	283	42.67±5.20					
Dyspareunia before pregnancy*							
Yes	92	42.76±5.89	2.555	0.011	1.626	1.34; 2.07	0.000
No	340	44.38±5.26					
Dyspareunia pain in pregnancy*							
Yes	118	43.60±6.23	0.937	0.350			
No	314	44.20±5.11					
Dyspareunia after birth*							
Yes	157	40.96±5.39	9.431	0.000	3.360	2.15; 4.56	0.000
No	275	45.80±4.63					
WHO-5*							
Normal	193	45.04±5.33	3.476	0.001	-0.012	-1.06; 1.04	0.982
Depressive	239	43.23±5.40					

R^2: 0.47; Adj. R2: 0.46; F: 26.265; p: 0.000; *Student's t test; **One-way analysis of variance (post hoc: Tukey); SD: Standard deviation; CI: Confidence interval; WHO-5: World Health Organization-5 Well-Being Index.

Türkiye, postpartum dyspareunia was found as 37% similar to our study.[17]

In our study, it is seen that the participants' sexual quality of life score was 44.04±5.44 and low. In studies in the literature, the quality of sexual life scores vary between 22.27-85.51.[13-17,27] In the study conducted by Rezaei et al. in Iran, it is seen from our study that approximately three quarters of women have poor quality of life in the postpartum period.[16] This case may be due to the different socio-cultural characteristics and access to health services limited compared to Türkiye in the postpartum period.[9]

In our study, it was found that one third of the participants showed depressive symptoms in the postpartum period, similar to the literature.[22] In a systematic review conducted in India, approximately one in four pregnant women was found to experience postpartum depression.[29] Also, in a meta-analysis study conducted by Özcan et al, the frequency of depression was found to be 21.2% in the postpartum period.[30] This may be due to the socio-demographic characteristics of the research groups, the difference in the scales evaluating the mental state, and that our study was conducted in a tertiary institution.

In our study, variables found significant in univariety analyzes were evaluated in multivariety analyzes. In this context, having high school education increases the risk of dyspareunia 3.35 times. As, in literature there are studies in which the level of education and dyspareunia are decreased, there are also studies where this increases.[31,32] This situation may be related to socio-cultural characteristics, duration of marriage and perception of partner.

Indeed, in our study, the risk of dyspareunia is high in those who have a short marriage period and who do not perceive their partners as attractive. In his study, Bień et al. determined that the risk of dyspareunia increases in women who do not find their spouse attractive.[31] Another factor affecting dyspareunia in our study is the history of dyspareunia and curettage. In literature, postpartum dyspareunia is listed as perineal trauma, mode of delivery, pregnancy and dyspareunia in pregnancy.[1,6,7,9,11] In the study conducted by McDonald et al. in Australia, similar to our study, it was found that mental state, history of dyspareunia and dyspareunia were related.[33] In our study, it can be differently thought that the negative effect of curettage on dyspareunia was caused by psychosocial perception, such as the physical perineal trauma caused by repetitive abortions, pressure against sexual freedom and not finding her partner sexually attractive. While the majority of studies focused on the frequency of depression after childbirth, in this study, differently, we evaluated the well-being of the postpartum mother with WHO-5, which can be used as a routine assessment tool in the postpartum period not designed for a particular group or period.[25] Similar to our study, Mortazavi et al. determined that 28.5% of women in an Islamic country show depressive symptoms and the mother's poor education level, marital problems, chronic diseases, multiparity and caesarean birth history, pregnancy and postpartum increase the risk of depressive state within 8 weeks.[22] In his systematic review study conducted by Özcan et al, as in our study, a relationship was found between being over 30+ years of age, having education at primary level, having multipatal pregnancy, having chronic disease during pregnancy, and mental status.[30] In our study, it can be thought that the negative effect of women with a recurrent history of abortion on their sexual freedom may also disrupt their well-being. In our study, it has been determined that having been married for 3-4 years, having chronic disease during pregnancy, having a curettage, not having knowledge about sexuality, experiencing dyspareunia before pregnancy, not finding her partner attractive, having dyspareunia after childbirth negatively affect the sexual quality score. Also, in a study conducted by Üstgörül and Yanikkerem in Türkiye, similar to our study, the postpartum period SQLS-F scale scores of women whose marriage duration was 1-5 years, who did not find their spouse attractive, who had abortion, and who had dyspareunia before and during the postpartum period were found to be lower than the other group.[17] In literature, as in our study, a relationship was found between postpartum pain experience and quality of sexual life.[34,35]

STUDY LIMITATIONS

When the study is carried out in North-western Türkiye, the findings may not be generalized for the

entire population of Turkish postpartum women. In addition, the study was based on women's own opinions without a structured interview. In the second stage of the study; while there is no face-to-face contact, although the majority of participants have fears such as perception of sexuality as taboo, psychological problem and stigma, it is gratifying to express that they are relieved. The study is one of the first studies conducted in this region.

CONCLUSION

Approximately one third of the participants are not in a good mood and they have postpartum dyspareunia. Sexual quality of life score is below average. In multivariate analyzes, having chronic disease during pregnancy, having an abortion, not finding her partner attractive and having postpartum dyspareunia increase the state of dyspareunia, depressive emotional condition and poor risk of quality of life. The risk factors identified in the study show that dyspareunia in women is a multidimensional problem with physical, emotional and social aspects in the postpartum period. In addition to the problems of women who are healthcare professionals, especially the psychological problems of women in high-risk groups such as low education level, problems in pregnancy, dyspareunia during and after pregnancy, can be evaluated by short scan scales such as "WHO-5 Well-Being Index" in routine postpartum follow-ups and be dispatched for early diagnosis and treatment.

In addition, longitudinal studies with larger samples are recommended to better explain the causal relationship between female sexual dysfunction and the factors affecting it in the postpartum period and to disseminate the results to the public. In the postpartum period, it is recommended that training should be provided about the content of sexual education given to women by non-physician health professionals, time to start postpartum sexual intercourse, the effect of changes in the woman's body on sexual life, and family planning methods as well as improving the quality of postpartum care, and presenting it on a first-line basis.

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Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

Idea/Concept: *Sevde Aksu, Celalettin Çevik;* ***Design:*** *Celalettin Çevik;* ***Control/Supervision:*** *Sevde Aksu;* ***Data Collection and/or Processing:*** *Sevde Aksu;* ***Analysis and/or Interpretation:*** *Celalettin Çevik;* ***Literature Review:*** *Sevde Aksu, Celalettin Çevik;* ***Writing the Article:*** *Sevde Aksu, Celalettin Çevik;* ***Critical Review:*** *Sevde Aksu, Celalettin Çevik;* ***References and Fundings:*** *Sevde Aksu, Celalettin Çevik;* ***Materials:*** *Sevde Aksu, Celalettin Çevik.*

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