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#### Research Paper – Araştırma Makalesi

#### RELATIONSHIP BETWEEN THE EXPERIENCE OF MENSTRUAL SYMPTOMS AND PERCEIVED SOCIAL SUPPORT IN WOMEN OF REPRODUCTIVE AGE: A CROSS-SECTIONAL STUDY

### ÜREME ÇAĞINDAKİ KADINLARDA MENSTRUEL SEMPTOM DENEYİMLERİ İLE ALGILANAN SOSYAL DESTEK ARASINDAKİ İLİŞKİ: KESİTSEL BİR ÇALIŞMA

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#### Özet

Bu çalışma, üreme çağındaki kadınlarda menstrüel semptom yaşama durumunun ailede menstrüel semptom varlığı ve algıladıkları sosyal destek arasındaki ilişkiyi belirlemek amacıyla yapıldı. Tanımlayıcı ve kesitsel tipteki bu çalışma, 01 Nisan- 30 Haziran 2022 tarihleri arasında İstanbul'da yaşayan 18-49 yaş aralığındaki kadınlar ile çevrim içi platformlarda yapıldı. Bu yolla ulaşılan, araştırmaya katılmaya gönüllü olan, 942 kadın araştırmanın örneklemini oluşturdu. Veriler Kişisel Bilgi Formu, Menstrüasyon Semptom Ölçeği (MSÖ) ve Çok Boyutlu Algılanan Sosyal Destek Ölçeği (ÇBASDÖ) ile toplandı. Çalışmaya katılan kadınların yaş ortalaması 28,45±6,75'ti. Kadınların %80,1'inin menstrüasyonunun düzenli ve %71,1'inin ailesinde menstrüel semptom öyküsü olduğu belirlendi. Kadınların, MSÖ toplam puan ortalamasının 63,02±16,07 ve ÇBASDÖ toplam puan ortalamasının 66,97±14,95 olduğu saptandı. Araştırma sonucuna göre menstrüel semptom yaşama ile ailede menstrüel semptom öyküsü arasında güçlü düzeyde, menstrüel semptom yaşama ile sosyal destek arasında düşük düzeyde anlamlı ilişki olduğu bulundu. Bu sonuçlara göre sosyal destek ile menstrüel semptom arasındaki ilişki hakkında ileriye dönük yöntemlerle daha fazla örneklemle daha fazla çalışma yapılması önerilmektedir.

Anahtar Kelimeler: Dismenore, menstrüel dönem, menstrüel semptom, sosyal destek

#### Abstract

This study aims to determine the relationship between menstrual symptom experience, the presence of menstrual symptoms in the family, and perceived social support in women of reproductive age. This descriptive and cross-sectional study was conducted with women aged 18–49 living in Istanbul on online platforms between April 1 and June 30, 2022. The sample of the study consisted of 942 women. Data were collected using the Personal Information Form, Menstruation Symptom Scale (MSQ), and Multidimensional Perceived Social Support Scale (MSPSS). The mean age of the women who participated in the study was 28.45 $\pm$ 6.75 years. Of the participating women, 80.1% reported that women had regular menstruation and 71.1% had a family history of menstrual symptoms. The mean total scores of the MSQ and MSPSS were 63.02 $\pm$ 16.07 and 66.97 $\pm$ 14.95, respectively. The results of the study showed a strong relationship between experiencing menstrual symptoms and a history of menstrual symptoms in the family. There was a low-level significant relationship between experiencing menstrual symptoms and social support. Accordingly, it is recommended to conduct more studies on the relationship between social support and menstrual symptoms using an increased sample size and prospective methods.

Keywords: Dysmenorrhea, menstrual period, menstrual symptoms, social support

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# **1. INTRODUCTION**

Pul Menstruation, a normal physiological event, can be characterized by different symptoms that begin during or before menstruation. Menstrual cycle problems represent a pervasive health issue with far-reaching societal implications, affecting approximately 75% of adolescent girls worldwide. The prevalence of these issues underscores the widespread necessity for medical intervention and support. (Sönmez et al., 2019, ss. 25–32). Many women experience these symptoms, which include dysmenorrhea, breast tenderness, body edema, fatigue, changes in eating patterns, and psychological symptoms such as tension, anger, low self-esteem, and aggression (Schoep et al., 2019, pp. 569; Yılmaz et al., 2020, ss. 131–136).

While menstrual symptoms may not pose a direct threat to life, women can significantly diminish the well-being of numerous women, impacting their mental health and daily functioning (Schoep et al., 2019, pp. 569). In general, age, smoking and alcohol consumption, high body mass index, menarche age, history of pregnancy, and family history of menstrual symptoms pose a risk for menstrual symptoms (Fernández-Martínez et al., 2018 pp. 1-11; Kural et al., 2015 pp. 426–431; Yılmaz and Şahin, 2019 ss. 426–438). Studies conducted to determine the risk factors of menstrual symptoms show that women with a family history of menstrual symptoms (such as mother, sister, or aunt) especially experience dysmenorrhea. This suggests that dysmenorrhea is caused by genetic factors, conditioned behaviors learned from mothers or sisters, or similar life patterns and lifestyles in families. The preparation of girls for puberty and menstruation is very important in the family. To support adolescents in developing a positive attitude regarding menstruation, women should be taught that these developments are a healthy and natural process. It should be remembered that parents may also need support and information in this regard (Ju et al., 2017, pp. 104–113).

It is important to determine the types and severity of menstrual symptoms and to provide relief with interventions to prevent symptoms (Evans et al., 2022, pp. 1410–1420). One of these interventions is social support. Social support reduces a person's vulnerability to stress, depression, and various mental and physical illnesses (Rezaee et al., 2017, pp. 233–239). Social support during menstruation is thought to help reduce the stress and tension experienced during menstruation and decrease symptoms (Rezaee et al., 2017, pp. 233–239; Yilmaz and Şahin, 2020, pp. 285–290).

Studies on the risk factors of menstrual symptoms and the effect of social support on women's health have been conducted across the world; however, there are very few studies that have determined the effect of social support perceived by women on menstrual symptoms (Evans et al., 2022, pp. 1410–1420). Health professionals can play a more important role in reducing women's menstrual symptoms by enabling them to make better use of social support resources. This study was conducted to determine the relationship between menstrual symptoms in reproductive-age women and the presence of menstrual symptoms in the family and the social support women perceive.



# 2. METHODS

# 2.1. Type of study

This is a cross-sectional, descriptive, and correlation-seeking study.

# 2.2. Setting and time of the study

The study was conducted using online platforms between April 01 and June 30, 2022, with women aged 18–49 living in Istanbul.

# 2.3. Study population and study group

The study population consisted of women between the ages of 18 and 49 who lived in Istanbul. Study data were collected using electronic questionnaires created using Google Forms on the online platform. Participants were invited to the study via social media platforms (Twitter, Instagram, WhatsApp) The sample comprised 942 women between the ages of 18 and 49 who were reached through social media platforms, volunteered to participate in the study, could read and understand Turkish, could use the Internet, and had a device to use the Internet.

# 2.4. Data collection tools

Study data were collected using a personal information form, the Menstruation Symptom Questionnaire (MSQ), and the Multidimensional Perceived Social Support Scale (MSPSS).

### 2.5. Personal information form

This form includes 13 questions to determine descriptive and menstrual characteristics and family history of menstrual symptoms (Barcikowska et al., 2020, pp. 1–10; Derya et al., 2019, ss. 176–181; Schoep et al., 2019, p. 569;).

### 2.5.1. Menstruation symptom questionnaire (MSQ)

Chesney and Tasto developed the MSQ in 1975 in English to evaluate menstrual pain and associated symptoms. It has gained widespread usage not only in the United States but also in various other countries. The MSQ employs a 5-point Likert-type scale, comprising a total of 24 items. In this study, the Turkish version, the validity and reliability of which were performed by Güvenç et al. (2014) was used. Respondents assign values ranging from 1 (never) to 5 (always) to indicate the frequency of their experienced menstrual symptoms. The MSQ score is determined by averaging the cumulative scores of all scale items. Higher mean scores suggest a greater severity of menstrual symptoms. This questionnaire is structured into three subscales: somatic complaints, pain symptoms, and coping methods (Güvenç et al., 2014, ss. 367–374).

# 2.5.2. Multidimensional perceived social support scale (MSPSS)

The MSPSS (Multidimensional Scale of Perceived Social Support) was devised by Zimet et al. in 1988 to gauge subjective evaluations of social support from three distinct origins. Eker and Arkar conducted a validation and reliability assessment of the scale in Turkey in 2001, revealing strong consistency with reliability coefficients ranging from 0.80 to 0.95. The MSPSS encompasses 12 items distributed across three categories of support sources: family, friends, and significant other, with each group containing four items. Item responses range from 1 to 7,

with a scale total ranging from 12 to 84. Higher scores indicate greater perceived social support, while lower scores suggest either a lack of perceived support or deprivation of support (Güleç et al., 2014, ss. 36–41).

### 2.6. Data analysis

The data obtained from the study were analyzed using IBM SPSS Statistics 26 software. The conformity of the variables to a normal distribution was evaluated using the Shapiro-Wilk test. Descriptive statistics (number, percentage, mean, standard deviation, and median), one-way ANOVA test, independent sample t-test, Pearson correlation test, and multiple regression analysis were used in the analyses of the data. The results were assessed at a 95% confidence interval and p < 0.05 significance level.

# 2.7. Ethical considerations

Ethical approval for this study was obtained from Istanbul University-Cerrahpaşa Social and Human Sciences Research Ethics Committee (Approval no: 2022/70). A Google survey form was sent to individuals who met the inclusion criteria and agreed to participate in the study. On the first page of the data collection tool, participants were informed about the purpose, scope, and ethical aspects of the study. Those who agreed to provide data checked the consent box, proceeded to the other pages of the data collection tool, and completed the questionnaire.

# **3. RESULTS**

The mean age of the women who participated in the study was  $28.45\pm6.75$  years, the mean age at first menarche was  $13.16\pm1.38$  years, and the mean duration of menstruation was  $5.88\pm1.38$  days (Table 1). Of the participants, 38.3% were in the 18-25 age group and 46.5% were married. Of them, 57.3% were employed and 86.3% had more than 12 years of education (university and above). In addition, 58.6% of the participants had a body mass index (BMI) of 19-24.9 kg/m<sup>2</sup>, 20.3% were smokers, and 11.5% had chronic diseases. It was also found that 80.1% of the women had regular menstruation, 79.6% had previously received information about menstruation, and 71.1% had a family history of menstrual symptoms (mother, sister, aunt, etc.) (Table 2).

When the descriptive characteristics of the women were compared with the MSQ and MSPSS results, there was a significant correlation between the participants' age, marital status, and family history of menstrual symptoms and the total mean MSQ score (p<0.05). As the age of the women increased, the total MSQ score decreased. Single women and women with a family history of menstrual symptoms had higher MSQ total scores. The total score of the MSPSS significantly correlated with the duration of menstruation, age, marital status, employment status, years of education, menstrual pattern, and receiving information about menstruation (p<0.05). Participants aged 31–40 years had a higher total score on the MSPSS than women in other age groups. Participating women who were married, employed, had a university education (12 years or more), had a history of regular menstruation, and received information about menstruation had higher mean total scores on the MSPSS (Table 1, Table 2).



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**Table-1:** Correlation Between Women's Descriptive Characteristics, MSQ, and MSPSS

 Scores

Variable	<i>Ā</i> ±SD	Negative Effects/Soma tic Complaints	Symptoms of Menstrual Pain	Coping Methods	MSQ Total	MSPSS Total
Age	28.45±6.75	r = -0.148	<i>r</i> = -0.151	<i>r</i> = -0.087	<i>r</i> = -0.155	<i>r</i> = -0.165
		<i>p</i> <0.001*	<i>p</i> <0.001*	<i>p</i> = 0.004**	<i>p</i> <0.001*	<i>p</i> <0.001*
First menstruation age	13.16±1.38	<i>r</i> = -0.065	r = -0.013	<i>r</i> = -0.025	r = -0.052	r = -0.038
		<i>p</i> = 0.023	<i>p</i> = 0.346	<i>p</i> = 0.218	<i>p</i> = 0.056	<i>p</i> = 0.125
Menstruation length	5.88±1.38	r = 0.030	r = 0.038	r = 0.012	r = 0.032	<i>r</i> = -0.056
		<i>p</i> = 0.180	<i>p</i> = 0.123	<i>p</i> = 0.361	<i>p</i> = 0.162	<i>p</i> = 0.042

*r*: *Pearson correlation*,  $\bar{X}$ ±*SD*: *Mean*± *Standard Deviation*, \**p*<0.001, \*\**p*<0.05

Table-2:	Comparison	Between	Women'	s Descriptive	e Characte	eristics, 1	MSQ, a	and M	<b>ISPSS</b>
Scores									

Variable	<i>X</i> ±SD	Negative Effects/S omatic Complai nts	Symptoms of Menstrual Pain	Coping Methods	MSQ Total	MSPSS Total	
	%( <i>n</i> )	<i>X</i> ± <i>SD</i>	<i>Χ</i> ±SD	<i>Χ</i> ± <i>SD</i>	<i>X</i> ± <i>SD</i>	<i>X</i> ± <i>SD</i>	
Age							
18–25	38.3% (361)	40.92±11.30	15.83±4.35	8.53±3.10	65.28±16.76	65.56±14.38	
26–30	27.1% (255)	40.30±10.75	14.98±4.18	8.29±3.06	63.47±15.87	68.67±14.73	
31–40	28.0% (264)	38.84±11.13	14.57±4.45	8.28±2.96	61.69±16.65	69.65±13.56	
40 and above	6.6% (62)	33.37±10.23	13.37±4.94	6.97±2.60	53.71±16.09	68.48±13.77	
		F = 8.983	<i>F</i> = 7.916	F = 4.731	<i>F</i> = 9.542	F = 11.506	
		<i>p</i> <0.001*	<i>p</i> <0.001*	<i>p</i> = 0.003**	<i>p</i> <0.001*	<i>p</i> <0.001*	
Marital status							
Married	46.5% (438)	38.22±10.94	14.50±4.31	8.00±2.91	60.73±16.13	70.62±13.46	
Single	53.5% (504)	40.88±11.24	15.59±4.53	8.54±3.13	65.02±16.89	63.80±14.55	
		t = -3.673	<i>t</i> = -3.806	<i>t</i> = -2.693	<i>t</i> = -3.968	<i>t</i> = 7.459	
		<i>p</i> <0.001*	<i>p</i> <0.001*	<i>p</i> <0.001*	<i>p</i> <0.001*	<i>p</i> <0.001*	



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Employment status						
Employed	57.3% (540)	40.05±10.97	14.84±4.34	8.37±3.02	63.35±16.32	69.24±14.12
Unemployed	42.7% (402)	39.10±11.43	15.42±4.50	8.19±3.07	62.71±17.14	63.93±14.34
		<i>t</i> = 1.285	t = -1.989	t = 0.875	t = 0.494	<i>t</i> = 5.679
		<i>p</i> = 0.199	<i>p</i> = 0.047**	<i>p</i> = 0.382	<i>p</i> = 0.622	<i>p</i> <0.001*
Education period	13.7% (129)	37.44±12.75	14.94±5.09	7.95±3.48	60.33±19.83	62.67±16.32
12 years less	86.3% (813)	40.06±10.87	15.12±4.28	8.36±2.98	63.54±16.07	67.73±13.97
12 years and more		t = 2.020	t = 0.342	<i>t</i> = 1.143	<i>t</i> = 1.594	<i>t</i> = 3.050
		<i>p</i> = 0.045**	<i>p</i> = 0.733	<i>p</i> = 0.255	<i>p</i> = 0.114	<i>p</i> = 0.003**
BMI						
$< 19 \text{ kg/m}^2$	11.9% (112)	39.38±10.32	15.45±4.20	8.20±3.02	63.03±15.37	66.35±13.40
19–24.9 kg/m <sup>2</sup>	58.6% (552)	40.28±11.08	15.14±4.38	8.37±3.01	63.79±16.54	66.84±14.68
25–29.9 kg/m <sup>2</sup>	2.1% (208)	38.24±11.23	14.62±4.43	8.11±3.02	60.97±16.66	67.62±14.60
30-34.5 kg/m <sup>2</sup>	5.4% (51)	39.35±12.55	15.37±4.84	8.47±3.10	63.20±18.54	68.20±12.52
$\geq$ 35 kg/m <sup>2</sup>	2.0% (19)	38.95±13.75	15.58±5.64	8.05±3.94	62.58±22.00	64.26±17.50
		F = 1.313	F = 0.897	F = 0.380	F = 1.088	F = 0.426
		<i>p</i> = 0.263	<i>p</i> = 0.465	<i>p</i> = 0.823	<i>p</i> = 0.361	<i>p</i> = 0.790
Smoking						
Yes	20.3% (191)	40.91±11.92	15.05±4.88	8.40±3.04	64.37±17.39	67.10±15.34
No	79.7% (751)	39.32±11.12	15.09±4.30	8.26±3.04	62.68±16.47	66.94±14.23
		<i>t</i> =1.761	t = -0.102	t = 0.566	<i>t</i> = 1.253	<i>t</i> = 0.134
		<i>p</i> = 0.079	<i>p</i> = 0.919	<i>p</i> = 0.571	<i>p</i> = 0.210	<i>p</i> = 0.894
Have chronic disease	11.5% (108)	41.06±10.48	15.08±4.28	8.72±2.85	64.87±15.53	65.04±14.95
Yes	88.5% (834)	39.46±11.25	15.08±4.44	8.24±3.06	62.78±16.81	67.23±14.38
No		<i>t</i> =1.403	t = -0.001	<i>t</i> = 1.565	<i>t</i> = 1.225	t = -1.482
		<i>p</i> = 0.161	<i>p</i> = 0.999	<i>p</i> = 0.118	<i>p</i> = 0.221	<i>p</i> = 0.139
Menstruation pattern						
Regular (21–35 days)	80.1% (755)	39.65±11.24	15.06±4.40	8.29±3.03	62.99±16.78	67.44±14.26
Irregular (< 21,> 35	19.9% (187)	39.64±10.95	15.19±4.51	8.30±3.07	63.13±16.27	65.10±15.08
days)		t = 0.007	t = -0.375	t = -0.038	<i>t</i> = -0.102	<i>t</i> = 1.983
		<i>p</i> = 0.995	<i>p</i> = 0.708	<i>p</i> = 0.970	<i>p</i> = 0.919	<i>p</i> = 0.048

#### **Employment status**



Received information	79.6% (750)	39.64±11.30	15.04±4.42	8.22±3.07	62.90±16.82	68.10±13.95
about mensu dation	20.4% (192)	39.68±10.68	15.23±4.44	8.57±2.89	63.49±16.10	62.57±15.52
Yes		t = -0.50	t = -0.529	t = -1.436	t = -0.435	t = 4.790
No		<i>p</i> = 0.960	<i>p</i> = 0.597	<i>p</i> = 0.151	<i>p</i> = 0.664	<i>p</i> <0.001*
Family history of	71.1% (670)	41.59±10.72	15.74±4.35	8.68±2.99	66.01±15.96	66.41±14.64
menser dar symptoms	28.9% (272)	34.86±10.84	13.47±4.17	7.33±2.93	55.66±16.11	68.37±13.91
Yes		t = 8.709	<i>t</i> = 7.352	<i>t</i> = 6.285	<i>t</i> = 8.999	t = -1.888
No		0.0011	.0.0014	0.0014	.0.0014	0.050

*t:* Independent Sample t Test, F: One Way ANOVA,  $\bar{X}$ ±SD: Mean± Standard Deviation, \*p<0.001, \*\*p<0.05

The distribution of the participating women's means scores obtained from the total and subscales of the MSQ and the mean scores obtained from the total and subscales of the MSPSS are given in Table 3. The mean scores obtained from the negative effects/somatic complaints, menstrual pain, and coping methods subscales of the MSQ were  $39.65\pm11.17$ ,  $15.08\pm4.42$ , and  $8.29\pm3.03$ , respectively; the mean total score of the MSQ was  $63.02\pm16.07$ . Similarly, the mean scores obtained from the family support, friend support, and significant other support subscales of the MSPSS were  $23.97\pm5.08$ ,  $23.05\pm5.37$ , and  $19.95\pm8.35$ , respectively; the mean total score of the MSPSS was  $66.97\pm14.95$  (Table 3).

Scale	Min-Max	<i>X</i> ± <i>SD</i>
MSQ		
Negative Effects/Somatic Complaints	13–65	39.65±11.17
Symptoms of Menstrual Pain	6–30	15.08±4.42
Coping Methods	3–15	8.29±3.03
MSQ Total	22–107	63.02±16.07
MSPSS		
Family	4–28	23.97±5.08
Friends	4–28	23.05±5.37
Significant Other	4–28	19.95±8.35
MSPSS Total	12–84	66.97±14.95

Table-3: Subscale and Total Scores of the MSQ and MSPSS

Min-Max: Minimum-Maximum,  $\bar{X}\pm SD$ : Mean $\pm$  Standard Deviation

Table 4 shows the correlation between the women's MSQ and the MSPSS scores. The study found a very low level, significant negative correlation between the negative effects/somatic complaints subscale of the MSQ and the family support subscale of the MSPSS (p<0.05). There was a very low-level negative correlation between the menstrual pain symptoms subscale of the MSQ and the MSPSS subscales and total score (p<0.05). A significant negative very low-level correlation was found between the coping methods subscale of the MSQ and the family support and friend support subscales of the MSPSS (p<0.05). In addition, the mean total score of the MSQ had a very low negative correlation with the subscales of family support and significant other support of the MSPSS and the total score of the MSPSS.

	MSPSS						
MSQ	Family Support	Friend Support	Significant other support	MSPSS Total			
Negative Effects/Somatic	<i>r</i> = -0.067	r = -0.48	r = -0.002	r = -0.043			
Complaints	<i>p</i> = 0.019**	<i>p</i> = 0.072	<i>p</i> = 0.472	<i>p</i> = 0.095			
Symptoms of Menstrual	r = -0.087	r = -0.059	r = -0.056	<i>r</i> = -0.085			
Pain	<i>p</i> = 0.004**	<i>p</i> = 0.035**	<i>p</i> = 0.042**	<i>p</i> = 0.005**			
Coping Methods	r = -0.068	r = -0.070	r = 0.012	r = -0.043			
	<i>p</i> = 0.018**	<i>p</i> = 0.015**	<i>p</i> = 0.359	<i>p</i> = 0.092			
MSQ Total	r = -0.081	r = -0.060	r = -0.014	r = -0.059			
	<i>p</i> = 0.007**	<i>p</i> = 0.032**	<i>p</i> = 0.330	<i>p</i> = 0.035			

#### Table-4: Correlation between Subscale and Total Scores of MSQ and MSPSS

*r*: *Pearson correlation*, \*\**p*<0.05

Table 5 shows the effect of descriptive characteristics on the total scores of the MSQ and MSPSS in women according to multivariate linear regression. The multiple regression analysis conducted to determine the cause-and-effect relationship between MSQ total score and age, marital status, and family history of menstrual symptoms was statistically significant (F = 33.387; p = 0.000). Age and family history of menstrual symptoms was effective in increasing the total MSQ score by 9.4% ( $R^2 = 0.094$ ). Multiple regression analysis carried out to determine the cause-and-effect relationship between the total score of the MSPSS and age, marital status, employment status, years of education, menstrual pattern, duration of menstruation, and receiving information about menstruation was statistically significant (F = 17.337; p = 0.000). Marital status, employment status, years of education, and receiving information about menstruation was statistically significant (F = 17.337; p = 0.000).



**Table-5:** Relationship Between Descriptive Characteristics and Total Score on the MSQ and the Multivariate Linear Regression

Dependent	Independent	β	t	р	F	Model (p)	$R^2$	Durbin
Variable	Variable							Watson
								vv atson
MSQ Total	Age	-0.90	-2.324	0.020	33.387	0.000	0.094	2.071
	Marital status	0.056	1.458	0.145				
	Family history of menstrual symptoms	-0.268	-8.569	p<0.001	-			
MSPSS Total	Age	0.004	.087	0.931	17.337	0.000	0.108	1.983
Total	Marital status	-0.226	-5.886	p<0.001				
	Employment status	-0.101	-2.959	0.003	-			
	Education period	-0.117	-3.620	p<0.001				
	Menstruation pattern	-0.039	-1.253	0.211	-			
	Menstruation duration	-0.041	-1.332	0.183	-			
	Received information about menstruation	-0.152	-4.919	p<0.001	-			



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# 4. **DISCUSSION**

The results of this study, which was conducted to determine the relationship between the presence of menstrual symptoms in reproductive-age women and the presence of menstrual symptoms in mothers and/or sisters in the family and the social support women perceive, are discussed below with reference to the relevant literature. Based on the results of the study, it can be argued that women experience moderate menstrual symptoms. In evaluations conducted by Derya et al. (2019) and Sönmez et al. (2019), focusing on university students experiencing menstruation symptoms, it was noted that the total mean score of the Menstruation Symptom Questionnaire (MSQ), as well as the mean scores for negative effects/somatic complaints and menstrual pain symptoms, were higher compared to the current study. However, the mean score for coping methods was observed to be lower in this study when compared to theirs. This could be due to differences in the age range of the sample group because the ability to cope with menstrual symptoms improves with age.

The present study found a significant relationship between menstrual symptoms and age and family history of menstrual symptoms in women. As age increased, menstrual symptoms decreased. Kim (2021) found a significant relationship between age and experiencing menstrual symptoms. Sönmez et al. (2019) conducted a study with university students and reported that the likelihood of experiencing somatic symptoms and dysmenorrhea increased as the age of the students increased. In addition, there was a relationship between age and experiencing menstrual symptoms. However, the positive or negative effect of age varies by study.

Based on the results of this study, a family history of menstrual symptoms was found to cause a 9.4% increase in the MSQ total score. When the results of studies conducted in different countries to examine the relationship between menstrual symptoms and dysmenorrhea in the family were examined, women with a family history of dysmenorrhea (such as mother, sister, or aunt) had a higher rate of dysmenorrhea than other women (Fernández-Martínez et al., 2018 pp. 1-11; Barcikowska et al, 2020, pp. 1-10; Şahin et al., 2015, ss. 25-44). Barcikowska et al. (2020) reported that 28.5% of the participants with dysmenorrhea in each menstrual cycle had a family history of dysmenorrhea. Fernández-Martínez et al. (2018) found that 81.1% of women with dysmenorrhea had a family history of dysmenorrhea. Sahin et al. (2015) found that more than half of the students with dysmenorrhea had a history of dysmenorrhea in their first-degree relatives such as a mother or sister, and that the incidence of dysmenorrhea in students with a family history of dysmenorrhea was 3.4 times higher than those without a family history of dysmenorrhea. The results of this study are similar to those in the literature. It suggests a genetic predisposition to dysmenorrhea among women with variant genotypes in a series of genetic polymorphisms in the family. It is also explained by the fact that dysmenorrhea is experienced as a learned behavior or psychologically. Therefore, it is important to question the family history in planning nursing services for women (Ju et al., 2017, pp. 104-113). The preparation of girls for puberty and menstruation is very important in the family. Adolescents should be taught that these developments are a healthy and natural process and should be encouraged to develop a positive attitude regarding them. It should be remembered that parents may also need support and information in this regard.

A significant relationship was found between perceived social support and age, marital status, employment status, years of education, menstrual pattern, duration of menstruation, and receiving information about menstruation. Erdem and Apay (2014) found that working women had higher levels of perceived social support. Tural and Çelik (2019) reported that women with a high level of education and who were employed had increased social support. The higher the level of a woman education, the more likely woman is to have a regular job and a steady income.



Thus, woman has access to positive health information, attitudes, and behaviors. Accordingly, women's perceptions of social support are also positively affected.

According to the results of this study, there was a low-level, significant relationship between experiencing menstrual symptoms and social support. In the study conducted by Schoep et al. (2019), 48.6% of women who were involved in family care for their children or parents reported that women transferred their responsibilities due to experiencing menstrual symptoms. Rezaee et al. (2017) examined the relationship between experiencing premenstrual syndrome and spousal support and found that 79.5% of the women experienced premenstrual syndrome. In addition, the rates of social support that women expected from their spouses during premenstrual and menstrual periods were 12.6% and 16.3%, respectively. Lee and Im (2016) conducted a study on Korean students and found that social support reduced students' stress levels and premenstrual symptoms. Another study found that three sessions of premenstrual period supportive behavioral training given to partners reduced women physical and psychological-behavioral symptoms (Rezaee et al. 2016, pp. 19-26). However, Evans et al. (2022) reported that social support did not affect the pain experienced during menstruation.

In most studies, women stated that menstrual symptoms decreased when women received social support. Social support provided by a partner, family, and immediate vicinity helps to reduce stress factors and solve psychosocial problems and makes it easier to cope with menstrual symptoms. Therefore, it is recommended to organize educational programs for women and men that teach how to better cope with menstrual symptoms

#### 4. 1. Limitations of the research

Since the period in which the research was conducted coincided with the Covid-19 pandemic, it was conducted in an online environment and the high education level of those who conducted the online survey constitutes the limitation of the research.

# 5. CONCLUSION

The results of this study showed a low-level, significant relationship between experiencing menstrual symptoms and the presence of a family history of menstrual symptoms and perceived social support. Few studies in the literature examine the effects of perceived social support on menstrual symptoms. Therefore, more studies using larger samples and prospective methods should be conducted to obtain more precise results about the relationship between perceived social support and menstrual symptoms.

In line with the results of the study, health professionals should ask about family history in detail when planning health services, such as treatment and care, for women who experience menstruation. In addition, health professionals should recognize that social support is important for helping women cope with the symptoms that arise depending on their menstruation history. To ensure positive attitudes and healthy behaviors, women's partners, families, and the community should be counseled about menstrual period symptoms and coping methods using written and visual materials following evidence-based guidelines.



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