ARAŞTIRMA MAKALESİ / *RESEARCH ARTICLE*

Coping Methods of Women Aged 15-49 with Dysmenorrhea

15-49 Yaş Aralığındaki Kadınların Dismenore ile Başetme Yöntemleri

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ABSTRACT

Aim: *This research was conducted in a descriptive type to determine the coping methods with dysmenorrhea used by women between the ages of 15–49.*

Material and Method: *The study population consisted of women aged 15–49 residing in a city in the north eastern region of Türkiye. The study sample consisted of 424 women who agreed to participate in the research from November to December 2020. "Descriptive Information Form" and "Dysmenorrhea Affected Scale" were used to obtain the study data. The research data was collected through an online interview.*

Results: *The mean age of women was 26.7±7.5 years. It was determined that 34.7% of the participants consulted a physician due to dysmenorrhea, and irritability, groin pain, and breast tenderness were the most common symptoms accompanying dysmenorrhea. Applying heat to the abdomen, sleeping, and drinking herbal teas were determined as the most common methods used by women to cope with dysmenorrhea. The average score on the scale is 129.69±26.82, which is above average. In the case of menstrual pain, there is a statistically significant difference between the use of analgesics and the level of dysmenorrhea (p<0.001). It was determined that there was a positive, substantial, and low-level relationship between the severity of dysmenorrhea pain and the level of dysmenorrhea affected (r=0.365; p<0.001).*

Conclusion: *More than half of the women participating in the study were found to use medication to cope with dysmenorrhea. The method of applying hot to the abdomen was determined as the most common method used by the women participating in the study in coping with dysmenorrhea. The following can be suggested: Counseling women by health personnel on issues such as the adverse effects of dysmenorrhea and coping methods.*

Key words: *dysmenorrhea; coping methods; reproductive age*

ÖZET

Amaç: *Araştırma, 15–49 yaş aralığındaki kadınların dismenore ile baş etmede kullandıkları yöntemleri belirlemek amacıyla tanımlayıcı tipte yapılmıştır.*

Materyal ve Metot: *Araştırmanın evrenini, Türkiye'nin kuzeydoğu bölgesinde yer alan bir ilde ikamet eden 15–49 yaş grubu kadınlar oluşturmuştur. Araştırmanın örneklemini ise, Kasım–Aralık 2020 tarihinde araştırmaya katılmayı kabul eden 424 kadın oluşturmuştur. Çalışmanın verilerini elde etmek için; "Tanımlayıcı Bilgi Formu" ve "Dismenore Etkilenen Ölçeği" kullanılmıştır. Araştırmanın verileri çevrimiçi görüşme yoluyla toplanmıştır.*

Bulgular: *Kadınların yaş ortalaması 26,7±7,5'dir. Katılımcıların %34,7'sinin dismenore sebebiyle doktora başvurduğu ve sinirlilik halinin, kasık ağrısının, memelerde hassasiyetin dismenoreye en çok eşlik eden semptomlar olduğu bulunmuştur. Karına sıcak uygulama, uyuma, bitkisel çaylar içme ise kadınların dismenore ile baş etmede en çok kullandıkları yöntemler olarak belirlenmiştir. Ölçeğin ortalama puanı 129,69±26,82 olup bu puan ortalamanın üzerindedir. Menstrual ağrı durumunda analjezik kullanımı ile dismenore etkilenmişlik düzeyi arasında istatistiksel olarak anlamlı bir fark bulunmaktadır (p<0,001). Dismenore nedeniyle doktora başvurma durumu ile dismenore etkilenmişlik düzeyi arasında anlamlı bir farklılık bulunmaktadır (p<0,001). Dismenore ağrı şiddeti ile dismenore etkilenmişlik düzeyi arasında pozitif yönlü anlamlı ve düşük düzeyde bir ilişki olduğu belirlenmiştir (r=0,365; p<0,001).*

Sonuç: *Çalışmaya katılan kadınların yarısından fazlasının dismenore ile baş etmek için ilaç kullandığı bulunmuştur. Karına sıcak uygulama yöntemi, çalışmaya katılan kadınların dismenore ile baş etmede en sık kullandığı yöntem olarak belirlenmiştir. Sağlık personelinin dismenorenin olumsuz etkileri, baş etme yöntemleri gibi konulara yönelik kadınlara danışmanlık yapması önerilebilinir.*

Anahtar kelimeler: *dismenore; baş etme yöntemleri; üreme çağı*

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Introduction

Pain is one of the most frequently experienced symptoms accompanying infection and bleeding in women and is one of the most prominent reasons for applying to the gynecology outpatient clinic[1]. Although menstruation is a physiological condition seen in women's lives, problems seen during menstruation negatively affect the person's quality of life. Dysmenorrhea is the most important and common of these problems[2].

Dysmenorrhea is a word of Greek origin. Dys (Dis) means painful, abnormal; the meno is the month; rhea (re) means flow[3]. This is when the individual has menstrual pain that interferes with regular activity and requires medication. Dysmenorrhea is briefly defined as "painful menstruation"[4,5]. Dysmenorrhea is the most common gynecological problem[6]. Uterine contractions, which disrupt blood flow in the uterus and pain during menstruation, cause the pain of dysmenorrhea[7].

Dysmenorrhea can be seen in every woman regardless of age and race, but adolescents are more common in younger women[8]. Dysmenorrhea is a condition that starts 1–2 years after menarche and continues regularly every month until the age of 40s[9]. Dysmenorrhea affects the quality of life and is associated with social situations, such as limited mobility, absenteeism from school and work, increased accidents, and economic losses[10,11].

It has also been found that dysmenorrhea reduces sleep quality[1]. However, women with dysmenorrhea were found to have higher body image disorders and depression symptoms. In addition, when evaluated in terms of nutritional disorders, it was determined that women with severe dysmenorrhea were a risk group[12].

Dysmenorrhea is the most common gynecological problem before menopause, with a rate of 55–93%[2,13]. A study determined that the individuals who experienced this problem the most were in the 16–17 age group[2]. Dysmenorrhea prevalence rates vary in many countries. For example, it was recorded as 28% in Mexico, 60% in Canada, 53% in New Zealand, and 55.5–95.6% in Türkiye[14,15].

Today, most treatments that are not modern but have holistic approaches are considered Complementary and Alternative Medicine (CAM)[6,16]. According to Keskin et al. (2016), CAM use is 41%-48.5% worldwide and 12.6–76% in Türkiye for various reasons[17]. In general, many CAM methods are used to treat dysmenorrhea. There are many old and new CAM applications in the form of acupuncture, mind-body-based therapies, body-based and manipulative therapies, diet, vitamins and minerals, and herbal therapies[1,18]. It is stated that with a rate of 80.9%, massage, and hot application are the most used methods to coping with dysmenorrhea[19].

Studies on the use of women's preferred coping methods with dysmenorrhea were found to be limited in the literature review. Therefore, this study aims to determine the methods preferred by women to cope with dysmenorrhea. It is thought that this will contribute to health professionals' knowledge about these methods. Based on this information, this study was conducted to determine the coping methods with dysmenorrhea of women aged 15–49 years.

Material and Methods

Study Type and Location

This research was carried out in November-December 2020 in a descriptive manner on women between the ages of 15–49 living in a city in the northeastern region of Türkiye. The research data was collected through an online interview.

Population and Sample of the Research

The study population consisted of women aged 15–49 residing in a city in the northeastern region of Türkiye. The central population of Kars province is 116,712 people as of 2019, and 57,796 of this population consists of women. This number corresponds to 49.52% of the total population[20]. While calculating the study sample, it was estimated that the number of women aged 15–49 in Kars would be between 25,000 and 50,000 people. It has been determined that the minimum number of samples to be taken for a population is 381 people, with a margin of error of 0.05 and a 95% confidence interval[21]. Considering that there may be deficiencies in the data collection forms in this study, it was decided to take an additional sample of 10%. After this procedure, it was calculated that a minimum of 419 people should be included in the study. After the data collection phase, 451 people were reached. Still, when the data were analyzed, 27 participants were excluded from the study due to missing and incorrect information in the data form. After these procedures, the study sample consisted of 424 people.

Variables of the Study: Demographic characteristics of women constitute the independent variable of the research, and, the methods used by women to cope with dysmenorrhea and the level of being affected by dysmenorrhea constitute the dependent variable of the study.

Data Collection Tools

In the study, together with the data obtained, the "Descriptive Information Form" and the "Dysmenorrhea Activity Scale" as a result of the literature scanned by the researcher were used for women between the ages of 15–49.

* ***Introductory Information Form:*** The researcher created the relevant form due to the literature review[6,22,23]. This consists of 29 questions such as age, marital status, education level, age at first menstruation, height, weight, duration of menstruation, alcohol and cigarette use, current gynecological disease conditions, symptoms accompanying dysmenorrhea, methods used to cope with dysmenorrhea of women between the ages of 15–49.

* ***Dysmenorrhea Effectiveness Scale:*** The Dysmenorrhea Effectiveness Scale (DES), whose validity and reliability study were conducted by Gün (2014), was designed to determine women's problems and coping methods during menstrual pain. It consists of a total of 39 items and 11 sub-dimensions. The scale's Cronbach's Alpha coefficient is 0.90. Participants evaluate each item on a 5-score Likert-type scale ranging from "strongly disagree (1)" to "strongly agree (5)". As the score obtained from the scale increases, the level of being affected by dysmenorrhea also increases. The lowest score that can be obtained from the scale is 39, and the highest score is 195. In the study, the average score on the scale was 129.69±26.82 (Minimum=67, Maximum=179), which is above average.

Dysmenorrhea effectiveness scale sub-dimensions and the items they contain are as follows:

1. Health perception and health management pattern (Items: 6, 16)
2. Nutrition and metabolic pattern (Items: 22, 27, 29)
3. Excretion pattern (Items: 2, 5)
4. Activity-exercise pattern (Items: 8, 10, 13, 15)
5. Cognitive-perceptual pattern (Items: 25, 31, 33)
6. Sleep-rest pattern (Items: 34, 36, 38)
7. Self-perception and self-concept pattern (Items: 4, 9, 11, 12, 14, 17)
8. Role relationship pattern (Items: 1, 3, 7)
9. Sexual reproduction pattern (Items: 18, 20)
10. Coping, stress tolerance pattern (Items: 23, 35, 37, 39)
11. Value belief pattern (Items: 19, 21, 24, 26, 28, 30, 32)[3].

Criteria for Inclusion in the Research

- Being between the ages of 15–49,
- Not currently pregnant and continuing menstrual cycle,
- Having dysmenorrhea,
- Agree to participate in the study.

Collection of Data

The research data were collected between November and December 2020 through an online interview. The researcher gave information about the purpose of the research via Google Forms, and volunteers were included in the study.

Evaluation of Data

Data analysis was done with the IBM Statistical Package for Social Sciences (SPSS) program version 23.0 package program. Arithmetic mean, standard deviation and percentage parameters were used in data analysis. Apart from this, parametric tests were used for variables with normal distribution, and nonparametric tests were used for variables that did not show normal distribution and $p<0.05$ was accepted as significant.

Ethical Aspect of Research

To conduct the research, ethics committee approval dated 30.10.2020 with number 2020/9 was obtained from the Non-Interventional Studies Ethics Committee of the Faculty of Health Sciences of a university in the eastern Anatolia region. For the measurement tool to be used in the research, permission was obtained via e-mail. The women included in the study were informed about the research and, the ethical principles, including the "Respect for Autonomy," were fulfilled after the "Informed Consent" principle was taken from those who voluntarily participated in the study. Ethical principles in the Declaration of Helsinki were complied with in the study.

Results

It was determined that the age range of the study participants varied between 18 and 49, and the sample mean was 26.7±7.5. When the Body Mass Index of the sample was examined, the mean was 23.1±3.7. 66.7% of the participants are single individuals. When the education level is reviewed, it has been determined that the education level of the majority (74.8%) is higher

education. 19.3% of the participants smoke, and 6.4% use alcohol. The rate of those consuming caffeinated beverages daily was 84.4%.

When the continuous variables of menstruation were examined, it was seen that the age of first menstruation varied between 11 and 16, and the mean was 13.6±1.2. When the pain intensity seen during the menstrual period was asked to be evaluated between 0–10, it was determined that the average pain score was 6.2±2.5.

When the categorical data on menstruation is examined, it is seen that the menstrual cycle of 73.8% of the sample is between 22 and 35 days. More than half of the sample (53.1%) had a menstrual period of 5 days or less. While 72.9% of the participants in the study experience pain in very little of the menstrual period, and 13% experience menstrual pain throughout. In addition, 34.7% of the sample applied to a physician because of menstrual pain. While the rate of those who have any gynecological disease is 26.6%, the rate of those who have menstrual pain in their family is 68.9%. 53.3% of the sample stated that they use painkillers to cope with menstrual pain. The rate of those who participated in training programs related to the menstrual period was 66.7% (Table 1).

In the study, when the symptoms accompanying dysmenorrhea were examined, it was found that 75.9% were nervous, 75% had groin pain, and 54% had breast tenderness, respectively. In our study, when we look at the methods used to relieve the severity of pain due to dysmenorrhea, hot application to the abdomen comes first with 64.1%. (Table 2).

When the dysmenorrhea affectation scale averages are examined according to marital status, it was determined that the average rank of the "single" individuals was 221.49. The average rank of the "married" individuals was 194.46, and this difference between the rankings was determined to be at a statistically significant level (Z=-2.140; p<0.05). According to this finding, the level of being affected by dysmenorrhea in "single" individuals is significantly higher than that of "married" individuals. When the level of being affected by dysmenorrhea in terms of educational status of the participants was examined, it was observed that the average rank of those with "primary education" was 198.09, 175.19 for those with "secondary

Table 1. *Distribution of data regarding categorical variables of menstruation (n=424)*

Variable	Category	n	%
Menstruation Cycle	Less than 21 days	88	20.8
	22-35 days	313	73.8
	More than 36 days	23	5.4
Menstruation Period	5 days and less	225	53.1
	6 days and more	199	46.9
How much pain is experienced during the menstrual period	Very few	309	72.9
	Approx half	60	14.1
	All	55	13.0
Seeing a doctor because of painful menstruation	Yes	147	34.7
	No	277	65.3
The presence of gynecological disease	Available	117	27.6
	n/z	307	72.4
Individuals with a family history of painful menstruation	Available	292	68.9
	n/z	132	31.1
Painkillers for menstrual pain	Yes	226	53.3
	No	198	46.7
The status of training for the menstrual period	Yes	283	66.7
	No	141	33.3

Table 2. *Problems experienced in the menstrual cycle and distribution of coping methods (n=424)*

Symptoms Accompanying Dysmenorrhea	n	%
Diarrhea	148	34.9
Constipation	53	12.5
Nausea	170	40.1
Breast tenderness	229	54.0
Back pain	196	46.2
Groin pain	318	75.0
Menstrual cramps	124	29.2
Headache	141	33.2
Insomnia	62	14.6
Weakness	209	49.3
Unrest	202	47.6
Nervousness	322	75.9
Susceptibility	208	49.1
Clot formation in menstrual blood	191	45.0
Awkwardness	36	8.5
Focus problem	99	23.3
Other	28	6.6
Coping Methods During Menstrual Pain*		
Walk	62	14.6
Hot shower	145	34.2
Hot application to the abdomen	272	64.1
Massage	131	30.9
Herbal teas	193	45.5
Dealing with other things will make them forget the pain	129	30.4
Sleeping	216	50.9
Making dietary changes	20	4.7
Meditation, yoga or breathing exercises	17	4.0
Using pain relievers	189	44.6
Other	19	4.5

* Participants marked more than one option.

education" and 221.19 for those with "higher education" and, the difference between the groups was found to be statistically significant (X^2=7.258); p<0.05). As a result of the paired comparisons, it was determined that there was a considerable difference between those whose education level was "Secondary Education" and those who had "Higher Education." According to this finding, the level of being affected by dysmenorrhea of individuals with a "higher education" level is significantly higher than the group with a "secondary education" level. When the difference in being affected by dysmenorrhea according to smoking status is examined, it was determined that the mean rank of the smoking group was 228.57, and the mean rank of the non-smoker group was 208.65. It was determined that there was a difference between the two groups in terms of mean rank, but this difference was statistically insignificant (Z=-1.322; p>0.05). When the level of being affected by dysmenorrhea according to the alcohol consumption status of the sample was examined; it was determined that the average rank of the alcohol-consuming group was 215.50 and the non-alcoholic group was 212.30. There was no statistically significant difference between the two groups in terms of the level of being affected by dysmenorrhea (Z=-0.131; p>0.05). When the levels of exposure to dysmenorrhea of the groups consuming and not consuming caffeinated beverages daily were examined, it was determined that the average rank of the group consuming caffeinated beverages was 220.15, and the group that did not consume was 171.03. In the examination, it was determined that this difference between the two groups was statistically significant (Z=-2.993; p<0.05). According to this finding, those who consume caffeinated beverages are more affected by dysmenorrhea than those who do not consume caffeinated beverages (Table 3).

When the relationship between age and the level of being affected by dysmenorrhea is examined, It was determined that there was an inverse and low-level correlation between the two variables, but this correlation was not statistically significant (r=-0.085; p>0.05). When the relationship between body mass index (BMI) and being affected by dysmenorrhea is examined; There was a positive, but not statistically significant, relationship between these two variables (r=0.010; p>0.05). When the relationship between the age of first menstruation and the level of being affected by dysmenorrhea is examined; no statistically significant relationship was found between these two variables (r=-0.063; p>0.05). When the relationship between the perceived pain intensity during the menstrual period and the level of being affected by dysmenorrhea is examined; it was observed that there was a significant positive and low-level relationship (r=0.365; p<0.001). According to this finding; As perceived pain increases, the level of being affected by dysmenorrhea also increases (Table 4).

When the level of being affected by dysmenorrhea is examined according to the monthly menstrual cycle; no statistically significant difference was found between the groups (X^2=1.045; p>0.05). Similarly, the level of being affected by dysmenorrhea did not differ according to the duration of menstruation (Z=-0.023; p>0.05). While the average rank of those who experience pain in a tiny part of their menstrual period is 199.00, the average rank of those who experience pain in half of their menstrual period is 216.21, and the rank of those who experience pain during the whole period is 284.30. It was determined that the mean ranks of those who applied to a physician due to painful menstruation were higher than the mean ranks of those who did not consult a physician (248.58 and 193.35, respectively), and this difference was statistically significant (Z=-4.417; p<0.001).

Table 3. *Comparison of women's level of affected by dysmenorrhea according to some demographic variables (n=424)*

Variable	Category	Average rank	Significance
*Civil Status	Married	194.46	Z= -2.140
	Single	221.49	p=.032
**Education	Primary	198.09	X^2=7.258
	Secondary	175.19	p=.027
	Higher	221.19	
*Smoke	Yes	228.57	Z= -1.322
	No	208.65	p=.186
*Alcohol	Yes	215.50	Z= -0.131
	No	212.30	p=.895
*Daily caffeinated beverage cons.	Yes	220.15	Z= -2.993
	No	171.03	p=.003

* Normal distribution of the variable in subcategories could not be achieved.
* Z: Mann-Whitney U Test
** Kruskal-Wallis

Table 4. *The relationship of level of affected by dysmenorrhea with some variables*

Variable	n	r	r^2	p
Age	424	-0.085	0.007	0.080
BMI	424	0.010	0.000	0.825
First menstruation age	424	0.063	0.003	0.199
Perceived intensity of pain during menstruation	424	0.365	0.133	0.000

Pearson correlation

According to this finding; As the level of being affected by dysmenorrhea increases, the application to the physician increases. The presence of gynecological disease in the individual seems to be a significant finding in terms of the level of being affected by dysmenorrhea. While the mean rank of the group with gynecological disease was 239.75, the mean rank of the group without the disease was determined as 202.12, and the difference was found to be significant (Z=-2.827; p<0.05). When the level of being affected by dysmenorrhea is examined according to the presence of someone in the family who has had a painful period; there is no significant difference between the groups (p>0.05). When the level of being affected by dysmenorrhea according to the use of painkillers for menstrual pain was examined; it was determined that the mean ranks of those who used painkillers for menstrual pain were higher than those who did not (237.40 and 184.08, respectively), and this difference was statistically significant (Z=-4.471; p<0.001). According to this finding; individuals with a high level of being affected by dysmenorrhea have a higher level of using painkillers for menstrual pain. When the level of being affected by dysmenorrhea is examined according to the educational status regarding the menstrual period, there was no difference between those who got an education and those who did not (Z=-0.112; p>0.05) (Table 5).

Discussion

Dysmenorrhea is one of the most common problems during menstruation. This research was conducted in a descriptive type to determine the coping methods with dysmenorrhea used by women between the ages of 15–49. The discussion results are given below.

It was determined that the age of menarche of the individuals participating in this study ranged from 11 to 16. The mean age was 13.6, and there was no statistically significant difference between the age of menarche and the level of being affected by dysmenorrhea. Karabulutlu (2020), in his study, determined that 68.4% of nursing students were between 12–14 years of age at menarche. In addition, the difference between dysmenorrhea and age at menarche was statistically insignificant[24]. Demirci (2017) investigated the CAM methods used to cope with dysmenorrhea, found the mean age at menarche to be 12.97 and found that the age of menarche and the use of CAM in dysmenorrhea were not related[1]. Similarly, in the study of Erenel and Şentürk (2007) and Yüce (2018), it was stated that there was no statistically significant difference between the incidence of dysmenorrhea and the age of menarche[2,14]. The results of our study and other study results show parallelism.

It was found that more than half of the women with dysmenorrhea who participated in the study (66.7%)

Table 5. *Comparison of the level of affected by dysmenorrhea, according to some menstrual characteristics*

Variable	Category	Average rank	Significance
**Menstruation Cycle	Less than 21 days	200.65	X^2=1.045 p=.593
	22-35days	215.75	
	36 days and more	213.67	
*Menstruation Period	5 days and less	212.37	Z=-.023
	6 days and more	212.65	p=.982
**How much pain is experienced during the menstrual period	Very few	199.00	X2=22.697 p=.000
	Approx. Half	216.21	
	All	284.30	
*Seeing a doctor because of painful menstruation	Yes	248.58	Z=-4.417
	No	193.35	p=.000
*The presence of gynecological disease	Available	239.75	Z=-2.827
	n/a	202.12	p=.005
*Individuals with a family history of painful menstruation	Available	220.11	Z=-1.903
	n/a	195.66	p=.057
*Painkillers for menstrual pain	Yes	237.40	Z=-4.471
	No	184.08	p=.000
*The status of training for the menstrual period	Yes	212.97	Z=-.112
	No	211.56	p=.911

* Normal distribution could not be achieved in the subcategories of the variable.
* Z: Mann-Whitney U Test
** Kruskal-Wallis

were single. When the dysmenorrhea affectation scale averages were examined according to marital status, it was determined that the average rank of the "single" individuals was 221.49, and the average rank of the "married" individuals was 194.46. This difference between the rankings was determined to be at a statistically significant level ($p<0.05$). In our study, it was found that single individuals were more affected by dysmenorrhea than married individuals. According to the study of Güngörmüş and Kiyak (2012); it was determined that single women had higher CAM usage rates, but there was no statistically significant difference[25]. The higher use of CAM in singles may be due to the desire of these groups to get results in the short term, the fact that they are a group more affected by the environment, and the fact that they are the group most affected by the increase in CAM popularity seen all over the world in recent years. It can be said that there is a need for more studies examining the relationship between CAM use and marital status.

When the study participants' body mass index (BMI) was examined; an average of 23.1 kg/m^2 was reached. In addition, in this study, a non-significant relationship was observed between BMI and the level of being affected by dysmenorrhea. In Erdoğan's (2013) study; the average BMI of the participating individuals was determined as 22.18 kg/m^2, and it was determined that the rate of dysmenorrhea was higher in thin individuals[26]. Metin and Kahyaoğlu Süt (2021), in their study, found the BMI value of women with primary dysmenorrhea to be 22.73. It was stated in the study that an increase in facial fat would reduce the risk of dysmenorrhea[27]. Zurawiecka and Wronka (2018) conducted a study on university students aged 19–25. They stated that dysmenorrhea is more common in women with BMI <18.5 (thin) and BMI >25 (overweight)[28]. The results of the research are different. It is thought that it may vary depending on variables such as geography and participant age groups.

In the study, the mean menstrual cycle of women with dysmenorrhea was found to be 22–35 days, with a rate of 73.8%. No statistically significant difference was found between the menstrual cycle and the level of being affected by dysmenorrhea. This was determined as 28–33 days in the study of Karabulutlu (2020) and 21–35 days in the study of Erdoğan (2013)[24,26]. Sönmezer (2014) found the cycle duration of the connective tissue massage group to be 28–34 days with a rate of 45.7%[29]. As a result of the research of Yüce (2018), it was determined that the incidence of dysmenorrhea is two times higher in women with irregular menstrual cycles[14]. Unlike these studies, in the study of Şahin et al. (2015) and Sönmezer (2014), it was found that there is no correlation between experiencing dysmenorrhea and menstrual cycle pattern[23,29]. These results were different. It is thought that they may vary depending on variables such as geography and participant age groups.

In the study, more than half (53.1%) of women with dysmenorrhea had a menstrual period of 5 days and less than five days. In the study, no significant difference was found between the level of being affected by dysmenorrhea and the duration of menstruation. In the study conducted by Yilmaz and Yazici (2010), it was found that the duration of menstruation (4–6 days) and the state of experiencing dysmenorrhea[30].

The pain intensity experienced by the individuals participating in the study during the menstrual period was evaluated between 0–10, and the average was found to be 6.2. In addition, according to the study, it was revealed that the severity of pain in the menstrual period and the level of being affected by dysmenorrhea were related. The level of being affected by dysmenorrhea increased as the perceived pain intensity increased. In the study of Polat and Mucuk (2021), most of the participants determined the severity of pain as 5–8[31]. This was found to be 6.17 in the study of Erdogan (2013), 5.56 in the study of Demirci (2017), 6.35 in the study of Yilmaz et al. (2020), and 6.40 in the study of Gün (2014)[26,1,32,3]. Our research and other studies show similarities.

In the study, the rate of participants who received training for the menstrual period was determined to be 66.7%. Our study determined that the level of being affected by dysmenorrhea was not related to the educational status of the menstrual period. In addition, most individuals participating in the study reported that they received the training for the menstrual period from school. The study conducted by Demirci (2017) determined that most women received information about the menstrual period, and the mothers mostly gave the training. Karabulutlu (2020) found that 74.3% of the students received training on menarche, and the mother was the first source of information. In addition, Karabulutlu stated that the status of experiencing dysmenorrhea was not associated with the status of receiving training[24].

Similarly, in the study of Erenel and Şentürk (2007), it was seen that the participants received information about menarche, and mothers were the first source of this information[2]. When we look at the results, the educational status of the participants is similar to that of our study. Still, different results were obtained in our study as a source of information.

In the study, the alcohol consumption rate of the participants was found to be 6.4%. In our study, it was determined that alcohol use did not affect dysmenorrhea. In the study of Metin and Kahyaoğlu Süt (2021), the rate of alcohol use in women with primary dysmenorrhea was found to be 18%, and that of women without primary dysmenorrhea was 24%[27]. In other studies, alcohol use rates are as follows: In the study of Gün (2014), the rate of alcohol use was found to be 14.2%, and he stated that there was no significant difference between pain severity and alcohol use[3]. Findings in the study and other research results were similar, and alcohol use rates were found to be low.

The smoking rate of women with dysmenorrhea who participated in the study was found to be 19.3%. In addition, in this study, it was found that smoking was not associated with the level of being affected by dysmenorrhea. In the study of Şahin et al. (2015), it was stated that smoking status may be related to the incidence of dysmenorrhea[23]. In the study of Metin and Kahyaoğlu Süt (2021), it was found that 31% of women with primary dysmenorrhea and 25% of women without primary dysmenorrhea were smokers[27]. Yüce (2018) found in his study that there was little relationship between tobacco and addictive substance use and dysmenorrhea[14]. In the study of Şahin et al. (2015), on the other hand, it was stated that smoking is related to the individuals' dysmenorrhea[23]. Studies have shown that smoking is generally low. However, the results of the studies differ.

It was determined that 84.4% of the study participants consumed caffeinated beverages daily. In our study, the level of being affected by dysmenorrhea in individuals who consumed caffeinated beverages was found to be higher than those who did not consume caffeinated beverages. In the study of Şahin et al. (2015), it was stated that there was no significant difference between the consumption of tea, coffee and cola and the state of experiencing dysmenorrhea[23]. In the study of Gün (2014), it was stated that there was a statistically significant difference between caffeine consumption and pain intensity[3]. The results of the studies are different. It can be said that more studies are needed regarding the relationship between caffeine consumption and dysmenorrhea.

Most of the participants in the study reported that they experienced pain during menstruation. It was found that the majority (72.9%) of the women in the study experienced pain for very little of the cycle time. In addition, in our study, it was found that as the duration of pain increased, the level of being affected by dysmenorrhea also increased. As a result of the study conducted by Sönmezer (2014) on two groups, it was determined that there was pain on the first day of menstruation in both groups. There was no statistically significant difference between dysmenorrhea and the pain duration of the cycle[29]. In the study of Erenel and Şentürk (2007), it was found that 38.3% of the participants had pain that started with menstruation and had pain on the first day.[2] Similar results have been obtained in many studies[1,15,24,26].

In the study, more than half of the participants (68.9%) stated that there was a family member experiencing pain due to dysmenorrhea. In the study, it was determined that there was no significant difference between the presence of individuals with a family history of dysmenorrhea and the level of being affected by dysmenorrhea. In the literature, it has been stated that dysmenorrhea is not a hereditary condition. Still, it is also known that the presence of a family history of dysmenorrhea is associated with dysmenorrhea[2,23]. In the study of Şahin et al. (2015), it was stated that there was dysmenorrhea in the family history of students with dysmenorrhea[23]. Similarly, in the study of Erenel and Şentürk, dysmenorrhea was observed in the first-degree relatives of more than half of the students with dysmenorrhea[2]. The study by Yaşar et al. (2020) determined that dysmenorrhea in the family history did not affect dysmenorrhea[33]. According to the research results of Hailemeskel et al. (2016), the incidence of dysmenorrhea in women with a family history of dysmenorrhea was 27 times higher than in women who did not[34]. The results of our research and other studies differ.

In the study, 34.7% of women consulted a physician due to painful menstruation. In our study, it was determined that as the level of being affected by dysmenorrhea increased, the situation of individuals to consult a doctor also increased. In the study of Kuşaslan Avci and Sari (2018), the rate of consulting a physician for women with dysmenorrhea was 22.5%. It was found that there was a statistically significant relationship between the severity of pain and the state of going to the physician for dysmenorrhea and other similar reasons[35]. In the

study of Gün (2014), the rate of visiting physicians for dysmenorrhea was 17%. The study found that the severity of pain and the status of consulting a physician were related[3]. In addition, due to social and cultural reasons, it is seen that the rate of physician visits is low in countries such as India, Nigeria and Egypt[35]. The results of our research and other studies show similarities.

In the study, the rate of analgesic use by women to relieve pain was 53.3%. In the study, the use of analgesics for dysmenorrhea and the level of being affected by dysmenorrhea were examined, and it was determined that there was a statistically significant difference between drug users and non-users. In the study of Yilmaz et al. (2020), it was determined that the average pain intensity of individuals who use drugs is higher than those who do not use drugs[32]. In the study of Yilmaz and Başer (2016) and Erenel and Şentürk (2007), it was determined that the rate of receiving medical assistance in coping with dysmenorrhea was low[2,36]. Judging by these results, it can be considered that women may need training in coping with dysmenorrhea and the use of analgesics.

In the study, when the symptoms accompanying dysmenorrhea were examined; Nervousness, groin pain, breast tenderness, weakness and irritability were found, respectively. In the study of Bakir and Beji (2021), they found premenstrual syndrome and symptoms accompanying pain as fatigue (65.5%), nervousness (64.9%) and appetite changes (63.1%), respectively[37]. In the study conducted by Topel and Pehlivan (2021), the symptoms accompanying premenstrual syndrome were determined as change in appetite (73.2%), fatigue (69.5%), and depressive affect (68.3%), respectively[38]. In the study of Türkmen (2019), it was determined that students who experienced symptoms such as weakness, tenderness, and breast pain were more likely to experience dysmenorrhea than students who did not[15]. Similar and different results are obtained when our research and other studies are examined.

In our study, when we look at the methods used to relieve the severity of pain due to dysmenorrhea, hot application to the abdominal region comes first. Other methods following the hot application to the abdominal region were determined as sleeping, drinking herbal teas, using painkillers, hot showers, massage, dealing with other things that will make forget the pain and walking, respectively. In the study of Gün (2014), the most commonly used CAM method to cope with dysmenorrhea was hot application to the abdominal region (67.2%)[3]. According to Kahyaoğlu Süt et al. (2019) research results, To reduce the pain associated with dysmenorrhea, prone and fetal positions were determined as lying down (57.9%), taking a hot shower (57.6%), sleeping (57.6%), applying hot to the feet (55.5%), and applying hot to the abdomen (52.2%)[6]. In the study of Şahin et al. (2015), it was determined that more than half of the participants preferred applying hot to the feet (59.1%), sleeping-resting (58.5%) and taking analgesics (56.1%) to coping with dysmenorrhea[23]. In the study conducted by Dogan et al. (2020), it was determined that individuals with dysmenorrhea preferred lying down and resting (72%) in the first, wearing comfortable cotton clothes in the second (63%), and rubbing the abdomen region in the third (56%)[39].

Conclusion and Suggestions

It was determined that most of the women participating in the study experienced pain during the menstrual period, and the mean pain was 6.2±2.5. It was determined that the majority of women with dysmenorrhea who participated in the study were individuals with a family history of dysmenorrhea. It was determined that the women in the study had a low rate of consulting a physician in case of dysmenorrhea. In the study, nervous, groin pain, breast tenderness, weakness and irritability were determined as the most accompanying symptoms of dysmenorrhea. More than half of the women participating in the study were found to use medication to cope with dysmenorrhea. The method of applying hot to the abdomen was determined as the most common method used by the women participating in the study in coping with dysmenorrhea.

Based on the research results, the following can be suggested: Counseling women by health personnel on issues such as the negative effects of dysmenorrhea and coping methods; Informing women by Nurses with dysmenorrhea on effective coping methods and research evidence-based methods that can be used and, follow current studies.

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Conflict of Interest

There is no conflict of interest related to this study

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